

**INTEGRATED CONSERVATION AND DEVELOPMENT PROJECTS (ICDPS):
CHARACTERISTICS OF SUCCESS AND RECOMMENDATIONS FOR
IMPLEMENTATION**

**By
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Abstract

The aim of this study is to investigate integrated conservation and development projects (ICDPs) and to help improve their future implementation by identifying the underlying philosophies that make ICDPs successful. Conserving natural ecosystems in developing regions is important, but it is difficult because local people use those ecosystems for their sustenance and are not capable of forgoing that use unless some other means exists for them to earn a living. Consequently, ICDP emerged in the early 1990s as a means to both conserve natural resources and provide economic development for the local people. This thesis provides an in-depth analysis of five successful ICDPs, chosen by diversity in location, size, habitat, and availability of information. Data were collected and compiled from published case studies and the projects' internal reports. The comparison of these ICDPs revealed the presence of three fundamental philosophies: community empowerment, bottom-up hierarchy, and ecotourism. These philosophies successfully involve the local communities in conservation, making ICDPs an extremely valuable and effective conservation method. Existing studies on ICDPs were either conducted before the projects reached maturity, thus concluding in the project's failure, or solely focused on specific guidelines that ICDPs should follow in order to be successful. This thesis adds to the literature by extending the identified characteristics of ICDPs to include the fundamental philosophies that make an ICDP successful.

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Acronyms

ACA	Annapurna Conservation Area
ACAP	Annapurna Conservation Area Project
ADC	Area Development Committee
APECO	Peruvian Association for the Conservation of Nature
BCES	Belize Center for Environmental Science
BLE	Belize Lodge and Excursions
CAMC	Conservation Area Management Committee
CAMR	Conservation Area Management Regulation
CBNRM	Community-Based Natural Resource Management
CDF	Community Development Facilitator
CEDIA	el Centro para el Desarrollo del Indígena Amazónico (Center for Amazon Indigenous Development)
COMARU	Consejo Matsigenka del Río Urubamaba
CRB	Community Resource Board
CREP	Caribbean Regional Environmental Program
EC	European Commission
EMM	Empresa Multicomunal Matsigenka
FI	Freshwater Initiative
FM	Fire Management
GEF	UN Global Environment Facility
GMA	Game Management Area
GTZ	German Technical Cooperation
FANPE	Fortalecimiento de las Areas Naturales Protegidas por el Estado (Strengthening of Protected Natural Areas by the State)
ICDP	Integrated Conservation and Development Project
IIC	Iwokrama International Center
INRENA	Institute of Natural Resources
JWC	Junior Wildlife Center
LCDS	Low Carbon Development Strategy
LGMA	Luangwa Game Management Area
LIRDP	Luangwa Integrated Resource Development Project
LLSC	Local Leadership Sub-Committee
MIF	Multilateral Investment Fund
MMMC	Maya Mountain Marine Corridor
MRV	Community Monitoring, Reporting, and Verification
NCDP	National Commission for Development Planning
NORAD	Norwegian Agency for International Development
NPWS	National Parks and Wildlife Service
NRDDB	North Rupununi District Development Board

NTNC	National Trust for Nature Conservation
PA	Protected Area
PCNP	Payne’s Creek National Park
PHMR	Port Honduras Marine Reserve
PNM	Parque Nacional del Manu (Manu National Park)
SEDUE	Mexican Ministry of Urban Development and Ecology
SIL	Summer Institute of Linguistics
SLAMU	South Luangwa Area Management Unit
SLNP	South Luangwa National Park
SME	Small and Medium Size Enterprise
TIDE	Toledo Institute for Development and Environment
TNC	The Nature Conservancy
TPPL	TIDE Private Protected Lands
TRIGOH	Tri-national Alliance of Non-Governmental Organizations in the Gulf of Honduras
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UN-REDD	United Nations Collaborative Program on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
USAID	United States Agency for International Development
VAG	Village Action Group
VDC	Village Development Committee
WHO	World Health Organization
WWF	World Wildlife Fund
ZAWA	Zambia Wildlife Authority

Chapter 1

Introduction

The increase in demand for natural resources is inevitable as world population increases and economic growth proceeds. In contrast to this demand is the responsibility to conserve the diminishing biological diversity that houses these natural resources. Thus, we face a paradox in the balance between development and conservation. Integrated Conservation and Development Projects (ICDPs) seek to provide an answer to this paradox by combining the goals of conservationists with the needs of local communities. Through the examination of five exemplary examples of ICDPs, this study identifies three vital characteristics for the success of ICDPs: community empowerment, bottom-up hierarchy, and the involvement of ecotourism.

Globalization, a process that has increased international trade and enlarged global markets, is generally thought of in terms of its positive benefits- creating a higher living standard, expanding economic growth and reducing the isolation of developing countries. Direct foreign investment in developing countries by economically advanced countries has increased tremendously (Bhawuk 2008; Levitt 1983). While this investment does assist developing countries in some overall

development aspects, the benefits of globalization are unbalanced, creating a larger gap between the 'haves' and 'have nots'. Nobel Prize winner in economics Joseph Stiglitz explains, "Despite repeated promises of poverty reduction made over the last decade of the twentieth century, the actual number of people living in poverty has actually increased by almost 100 million. This occurred at the same time the total world income actually increased by an average of 2.5 percent annually" (2002 5).

Another problem in developing countries central to continuous global economic growth is environmental degradation caused by industrial and urban development. The secondary effects of this problem are waning commodity prices and increasing foreign debts that force developing countries to seek economic alternatives (Place 1995). For example in Africa, "rapid human population growth and the resulting misuse and degradation of the land," explains Kiss, has led to "the decline in Africa's wildlife heritage and the persistent poverty of its rural people" (Kiss 1990). This decline of biodiversity and the poverty struggle of rural people are seen in developing countries all over the world, where conservation efforts and development objectives compete against each other.

Integrated conservation and development projects (ICDPs) are a response to the globalization issues in developing countries that seek to reconcile the contrasting goals of conservation and development. ICDPs look for ways in which conservationists can include local communities in natural resource management that will in turn raise people's standard of living and environmental consciousness. Early conservation methods that established protected areas operated under the

assumption that revenue-sharing would be sufficient compensation to displaced or surrounding communities (Mariki 2013; Gibson and Marks 1995; Hulme and Murphree 2001). However, conservationists soon realized that this method did not change the local communities' attitudes or behaviors towards conservation and that successful management is dependent upon local support and cooperation (Boonzaaier 2012). For this reason, ICDPs are thought to be a worthy conservation practice.

Existing literature on ICDPs mainly explores different projects and evaluates their success. Each of these cases studies follows a similar structure more or less. Typically, these examinations include the identification of the project's key problems and lessons that can be learned from the project. From these lessons, the authors list characteristics that should be involved in the project if it is to be successful. These characteristics include: extensive research and analysis on environmental, social, and economic climate of the area; an overall understanding of the existing relationship between local communities and their environment; an emphasis on local participation in both the planning and implementation of the project; government, NGO, and donor support; the knowledge of and ability to influence policies; and long term financial and technical support (Hughes and Flintan 2001; Alpert 1996; Kiss 1990; Oates 1995; Hannah 1992; Kremen et. al. 1994; Western et. al. 1994; Wells, Brandon, and Hannah 1992; Gibson and Marks 1995; Boonzaaier 2012). These recommended characteristics are similar in each study.

Other studies of the ICDP method are very critical of its ability to be applied to real-world situations. In contrast to the studies mentioned previously that imply ICDPs can be successful, as limited as that success may be, critical studies do not believe that the goals of ICDPs are realistic specifically in regard to conservation. For example, some critics conclude that ICDPs are not an appropriate solution to conservation issues. Reasons for such conclusions include ICDPs requirement of a major investment with no promise of return and that ICDPs are too complex to address immediate conservation problems (Kramer, van Shaik, and Johnson 1997). Others criticize ICDPs for their dependence on local communities, that it is irresponsible to give local communities total authority of conservation (West and Brechin 1991). However, these criticisms of ICDPs have to do with specific projects that failed due to numerous reasons. Because ICDPs are so intricate and depend on so many different aspects it is impossible to understand specific characteristics or situations that will work for every ICDP implemented. Brandon and Wells concluded in 1992 that “the mixed results already emerging from the first generation of ICDPs suggest that any effort to present this approach as a panacea for conservation should be strongly resisted.” (1992, 567). But, it is possible that ICDPs seem like failures because there was not enough time for the underlying philosophies of ICDPs to take hold within the communities and their conservation efforts.

The existing, extensive research on ICDPs provides support both for the potential of ICDPs and for the failure of ICDPs as conservation solutions. The first ICDPs were established between the mid-1980s and 1990s. Consequently, most of

the studies on their effectiveness were conducted a few years after their implementation between 1990 and the early 2000s. The conclusions of these studies often came out negative perhaps because, as stated previously, ICDPs had not had time to reach their full potential. Current studies of ICDPs in their second and third generation are few in numbers. Therefore, a gap in the external research and evaluation of long-standing ICDPs exists.

The remaining literature on ICDPs examines specific projects and found the possibility of success if certain ICDP characteristics were implemented. While the recommended characteristics are useful, they are identified based on the specific case study the author conducted which usually only involved one area or region. Even though these characteristics can be adapted to the different circumstance under which an ICDP is established, they do not specifically address the fundamental philosophies or principles behind successful ICDPs. Thus, knowledge on required characteristics of successful ICDPs can be extended to include the underlying ideologies that provide the foundation of ICDP effectiveness.

In what follows, I will address the gap in the evaluation of long-standing ICDPs as well as add on to existing research by identifying necessary ICDP philosophies and principles. In order to do so, I will present empirical data collected on five exemplary examples of integrated conservation and development projects. Data was collected from published case studies and the projects' internal reports and is used to compile an overall report on each project that includes the project's environmental, cultural, and economic situation, the origins of the project, the formation process, the organizational structure, the partnerships involved, and the

conservation and development activities involved. After examining and comparing the ICDPs, similar philosophical undercurrents became evident in each project. It is because of these undercurrents that ICDPs can be considered an extremely effective conservation method.

Chapter 2

Integrated Conservation and Development Projects

Each Integrated Conservation and Development Project is unique and is planned based on the characteristics of the environment, the culture, and the people of the area where it is implemented. There is no uniform structure or set formula for the creation of a project. Instead, the project must be molded and formed based on the perspectives of the communities where the project will take place, because it is their attitudes and efforts that will truly make the project successful. In my literature review, I will examine the different aspects of an ICDP: where they are needed, how they are implemented, and how to measure their success.

What is an Integrated Conservation and Development Project?

The working definition of an ICDP is constantly changing. Some definitions attempt to explain the ideology of the ICDP, while others attempt to define the specific criteria that every project must meet in order to be considered a true Integrated Conservation and Development Project. However, the underlying meaning in every definition remains the same, containing both conservation and development elements. Hughes and Flintan define ICDPs as “biodiversity

conservation projects with rural development components“(2001, 4). Other definitions refer to the goal or aim of ICDPs. Kremen, Merenlender, and Murphy state that, “In general the goal of ICDPs is to promote conservation of biodiversity while improving human living standards” (1994 389). Baral, Stern, and Heinen define ICDPs as an exchange of development incentives for conservation behaviors of the local communities (2006).

The definition that seems to be the most encompassing and that I will use for the argument of my thesis is Brandon and Wells’ definition: “Integrated Conservation-Development Projects (ICDPs) attempt to link biodiversity conservation in protected areas with social and economic development in surrounding communities” (1993 558). I have chosen this definition because it places emphasis on the relationship or connection between conservation and development, and it does not leave one as less significant than the other.

History

The creation of protected areas (PAs) eventually evolved into the concept behind ICDPs. The world’s first national park was the Yellowstone National Park, established in 1872 (Mitchell 2007). The idea of original PAs, like Yellowstone, was to draw boundaries around environmentally unique areas in order to protect them from damaging uses and to allow the public to visit and enjoy them (Brandon and Wells 1992). This strategy relies on the assumption that local communities and economies are in direct conflict with conservation efforts. They create strict borders where people are restricted to resource use outside the boundaries, and animals and plants must stay within the boundaries to remain protected. Four of the

six protected area classifications provided by the World Conservation Union are under this “no consumptive use by people” category (Salafsky and Wollenberg 2000).

However, an important aspect was overlooked in the foundation of these parks. Most of the areas were surrounded by marginal and rural communities that depended on the resources that were blocked off from them when the PA was established. Salafsky and Wollenberg expand on this stating, “In countries where remote populations endure structural social and economic inequities, protected areas have often further restricted the livelihood options of people who are destitute” (2000 1424). The restriction caused negative views of conservation in these communities and often created conflicts between the communities and park personnel. The need for the restricted resources overpowered the repercussions of extraction such as fines or even imprisonment. Furthermore, from an ecological perspective, protected areas are typically too small to sustain viable populations of the larger animals and necessary ecological functions over greater periods of time (Salafsky and Wollenberg 2000 1422). It soon became evident to conservationists that the “fines and fences” approach to protected areas was not working. Widespread poaching, loss of habitat, and the threat of extinction still plagued these areas because they were in direct competition with development needs the local communities, and ultimately the developing countries themselves.

Conservationists then began looking for a way to smooth out relationships between the parks and their surrounding communities. According to Wainwright and Wehrmeyer, “The financial crisis faced by many developing countries, along

with a lack of adequate resources needed to protect endangered areas, has resulted in a merging of wildlife management with participatory forms of development planning and organization” (1998 933). Alpert explains the gradual integration of conservation and development as a “marriage of convenience” (1996 845). The first attempts to combine conservation and development resulted from the lack of success either had on its own because the protected area boundaries were not enough to protect the areas from damaging uses.

As a solution, UNESCO’s Man and the Biosphere Program¹ created the buffer zone system (Alpert 1996). According to Salafsky and Wollenberg, “The key feature of the buffer zone strategy is that zonation is used to create a spatial compromise that enables local people to continue to meet their livelihood needs while still protecting key species and habitats” (2000 1425). The theory is that the substitution of other livelihood activities will decrease the peoples’ reliance on the biodiversity within the boundaries of the PAs. Furthermore, different parks began implementing individual programs to promote a harmonious relationship between the communities and the protected area. For instance, in the American Samoa National Park, the US National Park Service leased areas of land to the Samoan tribes to carry on their own local management strategies (Cox and Elmqvist 1991). The resource consumption within the areas was tested to ensure that conservation needs were still being met. Alpert notes that biological conservation was also tested

¹ UNESCO’s Man and the Biosphere Program (MAB) was launched in 1971 as an intergovernmental scientific program that aims to “establish a scientific basis for the improvement of relationships between people and their environment. Its network of Biosphere Reserves currently includes 621 reserves in 117 countries (“Man and the Biosphere” 2013).

outside of the areas, and conservationists discovered a heightened interest among the surrounding communities in the ecological functions that the areas serve (1996).

However, the buffer zone approach was not without problems. Salafsky and Wollenberg detail a few of these problems in their literature review (2000). Despite, the newly designated resource use in buffer zones, local people often continued to use the resources within the protected areas despite warnings. Also, the success of the economic activities promoted within the buffer zone often created the desire to expand the buffer zone into the protected areas. Overall, the buffer zones did not provide a sufficient amount of incentives to null the external threats to the biodiversity within the protected areas.

Due to the shortcomings of the buffer zone approach, conservationists searched for another way to reconcile conservation goals with the development goals of the local communities within the unique area or environment. To do so, conservation and development could no longer work against each other. Instead, livelihood and development activities had to be dependent upon and directly linked to biodiversity. Thus, integrated conservation and development projects emerged in the mid-1980s.

The first ICDP was founded by the World Wildlife Fund (WWF) through the Wildlife and Human Needs Program in 1985. In the project's first annual report WWF explains,

“The future of the earth's biological diversity is inextricably linked to improving the quality and security of life of rural populations: so they are not forced to deplete their resources to survive; to create the conditions necessary for populations to begin to stabilize; and to make it logical and

prudent for them to invest in longer term sustainable exploitation strategies” (World Wildlife Fund 1988 1).

The project was funded by a matching grant from the United States Agency for International Development (USAID) under the assumption that if the destruction of natural resources continues it will only worsen the predicament of those who depend on them. The WWF used the grant to develop a program that focuses on the management of native protected areas, biological diversity, wildlife utilization, fisheries, and watershed protection, and benefits the local people through income generation, land titling, enhanced access to and improved management of the wildlife resources, and the creation of a variety of small development projects. According to Hughes and Flintan, “by 1994 the Wildlife and Human Needs Program was supporting more than fifty ICDPs... roughly fifteen of these projects were continuations of the first generation ICDPs developed in the mid-1980s” (2001 5).

Since then, ICDPs have been undertaken by many other organizations on the local, national, and international levels. The ICDP model has become the most popular model for conservationists to achieve their goals, since there are virtually no remaining environments untouched by human populations. Although the ICDP requires great compromise, compromise that many conservationists are reluctant to make, it remains the most realistic option to maintain the biodiversity that remains in the world.

Core Components of ICDPs

An exact formula for an ICDP does not exist. There is no universal system to the creation and implementation of an ICDP. However, every ICDP has core components that make it identifiable. Alpert outlines three main features: “ICDPs

link conservation of relatively intact natural habitats with the development of better living conditions in local human communities... ICDPs are concerned with an individual site and tailor their design to its specific problems and prospects... ICDPs are adapted to conditions in the Third World” (1996 850). Although they may look completely different on paper, every ICDP has these core components in common.

There are two important aspects to the first component: ICDPs link conservation of relatively intact natural habitats with the development of better living conditions in local human communities. First, this feature specifies that the project should be implemented in an area with “relatively intact natural habitats.” This is an important specification because the goal of ICDPs is to conserve the biodiversity as it is, not to revert the environment back to its original pristine state. If environmental degradation is too great, then the project will be doomed from the beginning. However, the location of ICDPs is usually threatened in some way by human activity, thus the need for intervention.

The second aspect of this component directly links development to conservation. Basically, the project introduces economically beneficial activities that are reliant upon the biodiversity of an area remaining intact. With these activities, the livelihood and living conditions of the residents in the area will improve, placing an extrinsic value on biodiversity. In theory, it is this extrinsic value that prompts the local community to make conservation a top priority. These activities can include ecotourism enterprises, local management of parks, and ecological monitoring and surveying.

Identifying a vital characteristic of ICDPS, the second component states, “most ICDPs are concerned with an individual site and tailor their design to its specific problems and prospects.” No two areas are the same. Each site has a different environment, different species, and a different culture. A very important aspect in the creation of a project is the research and surveying involved before the project is outlined. The creators of an ICDP are typically outsiders concerned with the approaching destruction of an extraordinary bio-diverse area. These creators or organizers are usually NGOs such as WWF. Alpert points out that “this means that projects often begin without active community participation, but it enables projects to ‘think globally and act locally’” (1996 850). The NGOs help to acquire international support and funding for the projects which are then allocated based on local priorities and opinions. However, this is not always the case. In Pred Nai, Thailand for example, the villagers came together to stop international logging companies from destroying the mangrove forests in the area and sought out help from NGOs in the creation of the Pred Nai Mangrove Conservation and Development Group (UNDP 2012 “Pred Nai”). Whether the project is initiated by outside groups or local communities, the unique design of the project remains at the core of its success.

The final component of the ICDP is its adaptation to conditions in the Third World. As Alpert explains, “In many developing countries, almost all of the land is inhabited, people depend heavily on local natural resources, and population growth is high” (1996 850). For this reason, protected areas cause great impositions on local communities by blocking off their resources or subjecting them to a loss of

livelihood or to property damage from wildlife in the neighboring reserve. It is important that the costs of conservation on the local communities are compensated by local benefits. In other words, it is difficult for local communities to appreciate the value of conservation of biodiversity if their basic needs are not met, such as health care, education, or sanitation. Often times the communities surrounding protected areas are the most marginalized and lack basic needs. If these needs are met, conservation has the potential to become a priority to the people.

Links Between Conservation and Development

As discussed earlier, conservation and development are typically conflicting goals. It is extremely difficult to combine the two. I will once again borrow Alpert's (1996) framework to explain how ICDPs link conservation and development.

The first of these links is geographical. The conservation aspect of the project is set in a protected area, nature reserve, or some other type of marked area of biodiversity, while the development aspect is set in the human settlements adjacent to that area. Hughes and Flintan explain that "the protected area [is] more often than not a national park" (2001 5). Thus, one of the main goals of the project is to improve the relationship between the state-managed PA and their neighbors.

The second link is administrative. The different stakeholders in both development and conservation must be linked and work together in order to accomplish their goals. The administrative design varies from project to project depending on many different factors. Typically, the ICDP receives funding from bilateral or multilateral donors and international conservation organizations (Hughes and Flintan 2001). Without this external financial revenue, the wildlife or

park departments cannot individually fund the development aspects of the project. Despite, the funding from external sources, advice and guidance should come from the local communities for it is their opinions that have the most value and importance to the success of the project. However, the local opinions must align with the national policies. Figure 2.1 depicts the administrative linkage between

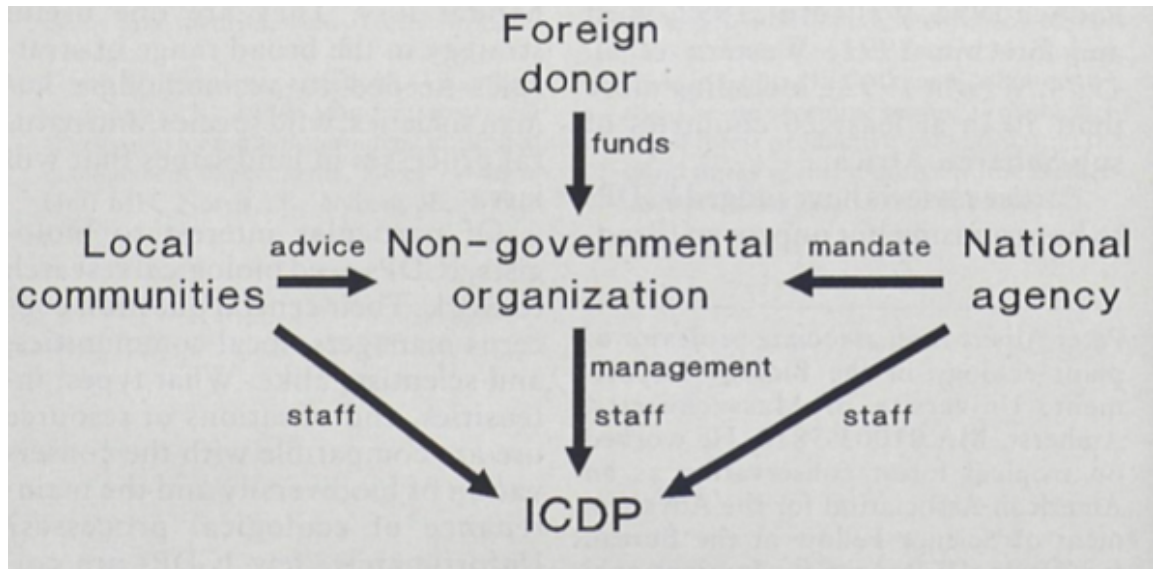


Figure 2.1: Administrative Organization of ICDP (Alpert 1996)

all of the stakeholders involved in the project. Foreign Donors provide the funding to the NGO, who distributes this funding to the ICDP. NGOs use the advice from local communities and mandates from national agencies to plan the ICDP. Finally, staffing for the ICDP is provided by local communities, the NGO, and the responsible National agency.

The final link between conservation and development is a functional one. The first way in which this link is created is through the promotion of self-interest in conservation by raising public awareness and education. For instance, the Toledo Institute for Development and Environment (TIDE) created an outreach program

that included town meetings and discussions, radio broadcasts, summer camps for children, and house visits in order to engage the local community in conservation efforts (UNDP 2012 “Toledo Institute”). Another functional link between conservation and development is using the income generated by park entrance fees to benefit residents or promote local enterprises. In the South Luangwa Area Management Unit (SLAMU) in Zambia 80% of the wildlife revenues from the park are channeled through the Village Action Group (VAG), where the communities decide how to use the money through democratic procedures and distribute quarterly reports to the entire community (Simasiku et. al. 2008). At other sites, where resources cannot be replaced by cash revenues, projects provide alternative, sustainable resources for those goods. The Annapurna Conservation Area Project (ACAP) created an alternative energy program to reduce the demand of firewood by providing improved cook stoves and solar panels for home use (Thapa and Basnet 2012). Finally, ICDPs also provide benefits, such as schools or clinics, to the local communities in exchange for their forgoing of certain resource use. In such cases, the NGO involved will use direct benefits to ensure communities participate in conservation activities.

Assumptions and Doubts

It is important to acknowledge that many assumptions are made in the creation and implementation of ICDPs. For many critics, these assumptions lead to doubts about whether ICDP methods are truly successful. Kremen, Merenlender, and Murphy explain, “Of the many inherent assumptions and problems that plague the integrated conservation and development paradigm, chief is the notion that well

planned rural development will automatically lead to conservation success” (1994 389). In certain areas, the link between conservation and development is too weak. Maybe the area is so damaged already that any development would greatly disable conservation elements, in which case an ICDP would not be an appropriate solution.

Another assumption pointed out by John Oates in his book *Myth and Reality in the Rainforest* is that wildlife can best be conserved through human economic development (1999). He takes a critical standpoint against any conservation that incorporates development stating that “it is much better to achieve in theory,” and that in reality conservation plans that include development aspects only hinder the conservation effort (Oates 1999 xvi). His extreme criticism, however, can be seen as more of a protectionist view than a conservationist view. And, as Kremen, Merenlender, and Murphy state, “a pure preservationist view is not viable in much of the world; hence the goal of retaining all existing biodiversity and restoring ecosystems to their original conditions is unrealistic” (1994 390). Whereas, ICDPs offer a realistic alternative to this traditional protectionist view. Sustainable livelihood options for locals can help to reduce or even diminish the human pressure placed on biodiversity, which makes conservation efforts easier (Hughes and Flintan 2001 5).

Most of the critique of ICDPs has to do with its application not its theory. Skeptics typically argue that ICDPs have unrealistic expectations about the integration of conservation and development, that they are conceptually flawed. On one hand, these skeptics have merit. The outcome of an ICDP will not be a win-win solution, this simply cannot be expected. As Fisher et. al. states, “Trade-offs often do

need to be made, but synergies are also possible. The important thing is to aim for the best of all realistic outcomes through negotiation” (2005 24). Compromise and strong relationships between conservation stakeholders and development stakeholders are vital to the success of the project, and can eventually lead to mutual goals and the accomplishment of those goals.

Furthermore, ICDPs have also been criticized for their imbalance. Depending on the project, conservation can overpower development or vice versa. As stated earlier, those most strongly opposed to ICDPs feel that they focus too fervently upon development programs without adequately addressing conservation efforts, and that the development programs do not have a strong enough link to sustainability. For instance, Wainwright and Wehrmeyer found that throughout project implementation local people show more enthusiasm and support for development than conservation (1998 942). Fisher et. al. adds to this by pointing out that, “Most ICDPs have no systematic programs to monitor their effects on biodiversity” (2005 26). Without effective ecological monitoring, the conservation status of the project will remain unknown.

An imbalance can also occur in the opposite way, where development takes a backseat to conservation efforts. Typically when this occurs, conservation policies are mandated in a prescriptive way to the local communities. In such cases, ICDPs patronize local participants, instead of giving value to their opinions and using them as true partners in the conservation effort (Baral, Stern, and Heinen 2006 2). This greatly affects both the social and economic aspects of development. When facilitators of ICDPs lack an understanding of the dynamics of local communities and

do not incorporate local participation into each stage of the project, the communities become further marginalized. Also, economic benefits to the local communities have rarely been enough to supplement their previous livelihood activities or revenues have not been equally distributed within the communities (Fisher et. al. 2005 25). These problems can lead to a loss of interest among the communities to continue in the project's endeavors.

Each of these assumptions and criticisms come from the mistakes and failures of past projects. In order for the ICDP method to be successful, they must be addressed and solutions must be found.

Success

What are the solutions to the previous criticisms, and how do we define a successful ICDP? There are two important philosophies that must be followed in order for an ICDP to be successful: multiplicity of scales and a bottom-up hierarchy. These philosophies must be imbedded within every stage of the project.

The first of these underlying philosophies is multiplicity of scales. ICDPs incorporate complex social and ecological systems. Fernandes uses the term "scale" to explain the numerous aspects involved in these systems. He explains, "Complex social and ecological systems cannot be understood by examining any one scale in isolation. Effective management must take place at multiple scales, and involve institutions linked across space (horizontally) and across different levels of organizations (vertically)" (2005, 6). Horizontal linkages are the community networks that develop with collaboration and adaptive learning throughout the education and management process. Vertical linkages are the relationships between

the different levels of organizations: local communities, NGOs, and government agencies. “Cross-scale” linkage is vital to the success of projects. The different organizations and stakeholders involved must interact and communicate both horizontally and vertically in order to find the best solutions to the identified problems. There is no exact equation for this communication. Instead, it is different for every project.

The second philosophy important to the success of ICDPs is a bottom-up hierarchy. Local communities must be at the core of every stage because it is their opinions and their collaboration that determine how successful the project will be. Since every location is different, each project must be custom designed for that location. For this reason, policies must be created at the lowest level of the organizational hierarchy; the planning must be at a grass-roots level (Fernandes 2004 7). In order for the bottom-up system to work, projects must often begin within institutional strengthening of local institutions, providing administrative training, leadership workshops, and education on both the conservation and development sides. Fernandes also points out, “Since governments often retain the majority of power in developing countries, state support and interventions are vital in achieving effective community-based management” (2005 7). Such interventions could include state recognition of local institutions, development of enabling legislation, and cultural revitalization. The essence of this philosophy is community empowerment, giving the local communities the tools and abilities to make educated decisions and changes for the betterment of their community. Aside from these philosophies, several other characteristics are present in successful projects:

decentralized and adaptive management, longer time frames, and extensive education, capacity building of local institutions, and ecotourism.

Ecotourism is a development activity that acts as the link between conservation and development within the ICDP. It is based on the same goals and principles as ICDPs in that it places emphasis on community empowerment, a bottom-up hierarchy, and conservation. When involved in an ICDP, ecotourism requires community involvement and education in conservation practices, highlighting the benefits that conservation can bring to the communities through tourism. This involvement fosters a sense of ownership of and pride in the unique biodiversity of the environment and culture of the communities, prompting enthusiastic participation in the project and ensuring the projects' success. See Appendix 1 for a thorough explanation of the definition, history, and development of ecotourism.

After an extensive literature review, I identified ten different projects that exemplified these characteristics of success. For the purpose of this study, I narrowed down the list to five projects: the Annapurna Conservation Area Project (ACAP), the South Luangwa Area Management Unit (SLAMU), the Casa Matsigenka project, the North Rupununi District Development Board (NRDDB), and the Toledo Institute for Development and Environment (TIDE). I chose these projects based on their diversity in world region and habitat and based on the availability of information and literature on the projects.² In what follows, I will provide an in-depth description of each project, how and why they were formed, their

² See appendix 1 for complete explanation of how the five studied ICDPs were chosen.

organizational structure, and the conservation and development activities that are involved in the project. These descriptions will illustrate the underlying philosophies and the characteristics of the five ICDPs and why they are attributed to the ICDPs' success.

Chapter 3

Annapurna Conservation Area Project

The Annapurna Conservation Area Project (ACAP) was established in 1986, making it one of the first integrated conservation and development projects to be implemented. The project has endured civil war, extended deadlines, and changing leadership, and still remains an example of ICDP potential. The ACAP covers the entire Annapurna Conservation Area, the largest conservation area in Nepal, with the largest population of the five ICDPs examined in this study. The ACAP compensates for its large jurisdiction by creating well-organized, bottom-up hierarchies that ensure policy decisions are made by the local communities. Its organizational structure and programs are the reasons for the large success of the ACAP as an integrated conservation and development project.

Nepal Background Information

Nepal's recent history is plagued with political instability. Nepal has a tradition of monarchical opposition to political parties (Osmani and Bajracharya 2007). After rioting in 1980, the constitution was reformed to include direct parliamentary elections, but eventually inter-party feuds began causing political

unrest. The communist party of Nepal, known as the Maoists, launched the civil war in 1996 in an effort to uproot the monarchy. This period was marked by violence, dissolved parliaments, changing leadership, interim governments, and a declared state of emergency (Sunam and Goutam 2013). The civil war was brought to an end in 2006 when a formal peace agreement was signed by the Maoist insurgency and Maoists formally entered parliament. After much turmoil, Nepal is currently struggling to find balance and cross-party consensus in order to create a new constitution ("Nepal Profile" 2013). Nepal's economy has greatly suffered from the constant political turmoil. According to the Index of Economic Freedom, Nepal stands at a \$37.8 billion GDP and 46% unemployment rate. The nature of the government's statist approach to the economy is greatly hindering development progress.

Such political and economic situations can make beginning an ICDP difficult. However, ICDPs can offer better solutions to remote areas than the government can during such a difficult time. Such is the case in Annapurna, a section of the Himalayas in north-central Nepal. Through email correspondence with Neeru Thapa, a conservation officer for the project, I learned that although the conflict has slowed down the project, it has not affected the project's objectives (2013). In order to reconcile the hindrance, the project was extended for 12 years and is expected to be completed this year.

Annapurna Conservation Area

The Annapurna Conservation Area (ACA) is the first and largest conservation area in Nepal. As stated earlier, it is located in the high Himalayas of north-central

Nepal (see figure 3.1). According to the Department of National Parks and Wildlife Conservation, the conservation area was established in 1992 and encompasses the entire Annapurna Himalayan Range at 7,629 sq. km. (“Annapurna Conservation Area” 2014). The altitude ranges from 501 meters to 8,091 meters above sea level. The conservation area houses the world’s deepest gorge, Kali Gandaki, and the world’s highest altitude lake, Tilicho Lake (Bhuju et. al. 2007). Annapurna is also Nepal’s first conservation area consisting of the entire habitat gradient from subtropical sal forest to perennial snow. The extensive amount of habitats houses 101 species of mammals, including the Snow leopard, Musk deer, Tibetan Argali, Tibetan wolf, and Tibetan fox, as well as 474 species of birds, 39 reptile species, 22 amphibians, and 1,226 species of flowering plants (Baral, Stern, and Bhattarai 2008). All of these characteristics make the ACA unique both to Nepal and the world.



Figure 3.1: Location of the ACA in Nepal (“Annapurna Conservation Area” 2013)

Not only is the ACA rare in its biodiversity and geographical features, but it is also unique because of its cultural diversity. The National Trust for Nature Conservation (NTNC) recorded 100,000 residents of the ACA (“Annapurna Conservation Area” 2013). Over 10 different ethnic groups compose this population, the main groups being the Tibeto-Burmese: Gurung, Thakali, Bhotia, Ethnic Tibetan, and Magar; and Indo Aryan: Brahmin, Kshetri, Kami, Damai and Sarki (Bhuju et. al. 64). Each of these groups has their own dialect and unique traditions.

Policy Framework

Nepal’s conservation efforts began in 1973 with the passing of the National Parks and Wildlife Conservation Act which declared the first national parks and wildlife reserves. In 1982, the NTNC was established under this act as an autonomous and not-for-profit organization. According to the NTNC website, their mission statement is as follows,

“To promote, conserve and manage nature in all its diversity balancing human needs with the environment on a sustainable basis for posterity - ensuring maximum community participation with due cognizance of the linkages between economics, environment and ethics through a process in which people are both the principal actors and beneficiaries” (“Annapurna Conservation Area 2013”).

The NTNC mission itself is in accordance with the definition of an integrated conservation and development project and lays the ground work for the formation of the Annapurna Conservation Area Project (ACAP).

In total, the NTNC has overseen 200 projects, one being the ACAP which was established in 1986. It was the work of the NTNC that helped the conservation area to be recognized legally as a protected area by an amendment to the National Parks

and Wildlife Conservation Act in 1992 (Baral, Stern, and Heinen 2006). The project began with just one Village Development Committee (VDC), the smallest political and administrative unit in Nepal, in Ghandu as a pilot project. Because of the success in Ghandu the project quickly expanded and now includes 55 VDCs in five districts (Bhuju et. al. 2007). After its expansion, the government ratified the Conservation Area Management Regulation (CAMR), which gave the project a legal framework for the operation of the conservation area (Baral, Stern, and Heinen 2006).

Project Structure

One important aspect of the ACAP that has contributed to its great success is its organizational structure. The project began on a very small scale in the district of Ghandu. As the project expanded, the NTNC created a network that branched from the smallest committees on the local level, then to the district level, and finally to the conservation area level. This bottom-up network lays the ground work for grass-root and individualized policies and programs for each village, making them more effective.

The ACAP is divided into seven management units, each with its own field office: Jomsom, Manang and Lo-Manthang in the trans-Himalayan region and Bhujung, Sikles, Ghandruk, and Lwang. Figure 3.2 shows the location and area of the management units. Each management unit oversees the various Conservation Area Management Committees (CAMCs) in their jurisdiction. According to Baral, Stern, and Heinen, all of the committees within each unit are similar in their ecosystems, social structures, socioeconomic status, and ethnic groups (2006).



Figure 3.2: Management Unit Maps (Thapa and Basnet 2012)

Therefore, the units do not have to deal with varying conservation or development problems. This uniformity makes it easier for each unit to address the most pertinent issues and create the most encompassing goals for the people within their area. For example, Jomsom, Manang, and Ghandruk focus on integrated tourism management because they are popular trekking destinations, while Bhujung, Sikles,

and Lwang focus on poverty alleviation and integrated agriculture development (“Annapurna Conservation Area” 2013).

Under the management units are the Conservation Area Management Committees (CAMCs), which belong to each VDC. Nine members of the CAMC are elected by the village assemblies, and five members are nominated by the Chief Conservation Officer of the ACAP (hired by the NTNC) from special groups such as women, occupational castes, etc. The VDC chair is an ex-officio member, and a chair and secretary are elected by the committee members. Decisions are made by simple majority, and the tenure of members is five years (Baral, Stern, and Heinen 2006). The NTNC also hires permanent ACAP staff to oversee this organizational structure. The role of the staff is to “provide technical support for drafting management plans, complying with area regulations, developing forest inventories, and designing and budgeting development projects” (“Annapurna Conservation Area” 2013). The staff also helps with capacity building through training workshops.

Funding for the project mainly comes from the entry fees paid by visiting trekkers. A trekking permit in the ACA costs 2,000 rupees or about 33 USD for foreigners and 200 rupees for Nepal citizens, according to the NTNC website. The NTNC entry permit counter recorded 99, 296 visitors, of which 85% were foreigners, generating about 2.8 million USD (Lama 2012). One hundred percent of the revenue from these fees goes to the implementation of conservation and development activities (Baral, Stern, and Bhattarai 2008). The startup funding for the project came from national and international donors. The main donors were the World Wildlife Fund (WWF) and the German Alpine Club.

Conservation and Development Activities

Each year the NTNC publishes an annual report in which the goals and developments for each project are identified and then assessed. In order to gain a full perspective on the project, I have read and outlined the last published annual report from 2012, which is available for the public to view on the NTNC website (Thapa and Basnet 2012). After reading the Annual Report, I identified three important aspects: goals and objectives, conservation activities, and development activities. In the report, Thapa and Basnet identify the six updated goals and objectives of the project: (1) Conserve, maintain and enhance flora, fauna, and their habitats in the ACA region, in harmony with their sustainable utilization; (2) Improve livelihoods opportunities of local people; (3) Develop, promote, and manage ecotourism with emphasis on pro-poor activities; (4) Preserve cultural heritage to maintain uniqueness and identity of the ACA region; (5) Develop and strengthen capacity of local institutions; (6) Enhance institutional capacity of management authority.

While reading the report, I categorized the programs into either conservation or development activities based on which goal or goals of the project the program accomplished. The first goal identified addresses the conservation aspect of the project. The following conservation programs work to accomplish the first goal, while also addressing goals five and six.

The first program detailed by the report is the Natural Resource Conservation Program. The program held training workshops for 70 forest guards and 60 administrative personnel. The program also included other educational

benefits such as awareness raising programs, mass meetings in villages, and encouragement of youth clubs and women groups to reduce wildlife crime, and forest fire awareness camps at 15 different sites. The program addressed crime through an increase of patrolling and surveillance rounds by local police to prevent illegal possession of endangered species and the annual coordination meeting to create anti-poaching action plan with representatives from Department of Forest Office, District of Soil Conservation Offices, ACAP, and Western Regional Forestry Directorate. Direct conservation acts included the planting of 66,000 forest tree seedlings/cuttings in private land and 86,000 in community land, which increased forest cover and helped in habitat shelter, and the construction of 19 operational nurseries. Finally, the program aided in administrative needs to ensure these activities' success with the construction of 6 CAMC buildings and audits of all CAMCs and Forest Management Subcommittees.

Ecological monitoring is an important factor in ensuring the success of conservation activities. The annual report recorded the steps the ACAP was taking in monitoring through their research and survey program. The first survey was to collect information on the status and distribution of the Himalayan Black Bear; specific VDCs were chosen by their vulnerability to black bear attacks. They also continued research on snow leopard, red panda, common leopard, and cheer pheasant populations. The program began the registration of the indigenous bio resources of the high mountains and the registration of biodiversity found in the area. Finally, the program facilitated community based monitoring training in conjunction with the Snow Leopard Conservancy.

The annual report of 2012 also recorded five development programs to address the remaining goals. The first of these programs is Agriculture and Livestock Development. This program supports and operates 12 sites, 6 tea nurseries, and 48 beehives. It also distributed tools and equipment to 110 conservation farmers and 180,000 seedlings to promote cash crops. The second development program listed is the Sustainable Community Development Program which includes the following: 26 buildings (school, daycare, and CAMC) supported for construction and/or maintenance, 78 toilets constructed, 19 drinking waters schemes, 12 irrigation canals, and 4 water mills constructed, 8 different trekking trails were repaired, and 4 bridges were constructed. The third program, the Alternative Energy Program, also works to improve infrastructure and sustainability by installing and subsidizing over 100 improved cooking stoves and solar panels for home use to reduce the demand of firewood.

The remaining two programs are, in my opinion, the most important in the aspect of community empowerment. The first of these is the Capacity Building Program. This program works on giving the local communities the tools to be self-sufficient and eventually run the project without any outside help. This program included: a Strategic Environmental Assessment workshop supported by the International Institute for Environment and Development, Training on community infrastructure development, livelihood, appreciative inquiry, social mobilization, report writing, and computer programs, and vocational trainings for plumbing and wiring. These programs are providing extensive education and capacity building

resources that empower local institutions and the people that run them to make a difference.

The final program is the Sustainable Tourism Management Program.

Tourism is the most emphasized development activity in the ACAP because of its direct benefits to the livelihood of the community and the revenue it generates through trekking fees. In 2012, the program built 17 visitor information centers, put up 65 sign boards, updated and printed 13,000 brochures, and constructed 16 incinerators and 4 dumping sites to manage the increase in waste. The program also facilitated a workshop to educate villagers on both the positive and negative effects of tourism.

Case Studies

I chose to examine the following case studies of the ACAP because they either determined community involvement in conservation, the change in local perception of conservation, or the effect of ecotourism in both conservation and development.

The first case study is entitled “Effectiveness of Community Involvement in Delivering Conservation Benefits to the Annapurna Conservation Area, Nepal” and was conducted in 2005 by Bajracharya, Furley, and Newton. The purpose of the study was “to critically examine whether or not the community-based approach to ACA management is successful in delivering conservation benefits in terms of improved biodiversity status” (Bajracharya, Furley, and Newton 2005 2). Fourteen villages were chosen to take part in the study; seven of these villages were within the ACA, and the remaining seven were located outside of the ACA. All of the communities were dependent upon wild resources for fuel wood, fodder, and

timber, and natural forests were accessible to all members. The researchers surveyed all forest sites and field plots within the villages, and interviewed and distributed questionnaire surveys in each sampled village. They created a participatory matrix ranking and scoring on a 1-5 point scale to assess community perceptions of different fuel sources and changes in wildlife populations.

The results reveal that ICDPs can achieve what they set out to accomplish. The study found that tree species diversity is higher inside the ACA, and since the beginning of the project, there has been an increase in wildlife populations within the conservation area. The study also revealed that fuel wood collection had been reduced by half in the last decade within the ACA. The results show that, contrary to popular belief, if the project is implemented correctly development aspects will not diminish the conservation goals of the project.

A study conducted by Baral, Stern, and Heinen in 2006 entitled ““Integrated Conservation and Development Project Life Cycles in the Annapurna Conservation Area, Nepal: Is Development Overpowering Conservation?”” also sought out to determine if conservation is overshadowed by development. The researchers chose the Ghandruk village as the study area because the project has been in place there for the longest time. They employed participant observation and archival analysis in each of the 5 CAMCs of the village. The prime units of analysis were decisions made in regular CAMC meetings found by reviewing the CAMC minute books and other official documents. The decisions were then classified into three categories: conservation activities, development activities, and institutional development activities. Data was also collected in participation and attendance of meetings.

The research found that the longer a CAMC was in place, the greater number of meetings and the greater independence from ACAP officials that CAMC had. The results also showed that the long term CAMCs tended to make more decisions regarding conservation, mid-term made more institutional strengthening decisions, and short-term made more development decisions. The primary conservation activities included afforestation, forest nursery management, seedling distribution, and wildlife population management. The results reinforce the idea that conservation will become the main concern of the community as the project continues.

The final study I reviewed was “Contingent Valuation of Ecotourism in Annapurna Conservation Area, Nepal: Implications for Sustainable Park Finance and Local Development” written by Baral, Stern, and Bhattarai in 2006. The purpose of the study was “to determine the willingness to pay for candidate entry fees to the protected areas” (2). The researchers administered written questionnaires to 315 foreign tourists that visited the ACA between April and May of 2006 in the Ghorepani region. This region is known mostly for trekking and lies in the economic middle ground of the ACA. The researchers distributed the questionnaires at all 40 hotels in the area. They employed contingent valuation to examine the possibilities for enhancing ACAs revenues through increasing tourist entry fees. The questionnaire was divided into six sections: purpose motivations and activities, the relationship between the domestic insurgency and ecotourism, assessment of ecotourism, environmental attitudes, willingness to pay, and demographic information. Participants were also given an explanation of the ACAs sole reliance

on entrance fees for funding and their interest in raising the fee from \$27 before the survey.

The results revealed a plethora of interesting information about ACA visitors and the value of ecotourism for the conservation area. A quarter of the visitors to the area were members of environmental organizations, and over 83% had some form of higher education. Only 2% of the visitors reported a negative experience, 87% had the desire to visit again, and 43% reported no comparable alternative destination for a similar ecotourism experience. On average visitors spent 6-15 days in the ACA and spent 18-20 USD a day. The gross economic impact resulting from 35,625 visitors in 2005 was 11,035,556 USD with around 60%, 7,198,459 USD, staying in the local economies. In the end, the researchers recommended an increase in the entry fee to 50 USD, although it currently remains at around 33 USD. The study shows that the revenue contributions ecotourism can provide enough to fund ICDPs.

Conclusion

The ACAP has been one of the leading examples of successful ICDPs in the literature (Hughes and Flintan 2001; Stevens 1997; Sanajayan, Shen, and Jensen 1997). Its success can be attributed to many different factors. One of the most outstanding factors is the project's commitment to community empowerment. The NTNC staff provided the local communities with the tools needed to run their own project. Firstly, this is evident in the ACAP's capacity building program and education programs, which allowed locals to acquire the skills needed to run an integrated conservation and development project and make sound policy decisions.

These tools are put into practice within the ACAP's organizational structure, where policy decisions are made at the local level through the Conservation Area Management Committees. Community empowerment also extends into conservation activities, such as the Natural Resource Conservation Program, which trained locals to participate as forest guards and administrative personnel in the ACA. By investing in the local communities through dedication of time and training, the ACAP built a solid foundation that ensures lasting positive effects on the area.

Another factor significant to the achievement of ACAP goals is a strong policy and legal framework, which includes NGO commitment and supportive government policies. In this case, NTNC appropriated funds, sought out donors, and lobbied on behalf of the ACAP for the necessary policies and regulations to ensure the ACAP's control over the Annapurna Conservation Area. More importantly, however, is NTNC's time commitment to the project. The project's original deadline of 1992 was extended by 12 years to 2014 because of the political troubles and civil war. In order to ensure that the ACAP's goals were accomplished, the NTNC remained dedicated to the project.

The final key element that makes the ACAP relevant to this study is that its major development activity involves ecotourism. The project is nearly self-funded thanks to the revenues generated from the entry fees paid by visiting trekkers. Baral, Stern, and Bhattarai's study found that ecotourists were so happy with their stay that they were willing to pay an even higher entrance fee (2006). Not only does ecotourism fund the conservation and development activities of the project, but it also provides alternative livelihoods for locals. The Sustainable Tourism

Management Program worked to educate villagers on the positive and negative effects of tourism to better prepare them for its effects. Participation in the Sustainable Tourism Management Program has also increased community participation in conservation efforts as well (Khadka and Nepal 2010).

Overall, the ACAP provides evidence for the application of ICDP principles in protected areas as a means of directly involving local communities in conservation efforts, while improving local development in a sustainable manner. Through the project, local communities received the organization and skills required to lead their own programs, and in the process adopted a consciousness of the importance of biodiversity conservation.

Chapter 4

South Luangwa Area Management Unit

The South Luangwa Area Management Unit (SLAMU) in Zambia has a unique and storied past. The project has two distinct phases. It began as the Luangwa Integrated Resource Development Project (LIRDP), which is known as the first phase. However, many detrimental factors lead to the failure of the project. After its failure, the project was redesigned and entitled the South Luangwa Area Management Unit. The SLAMU took a new approach to the integrated conservation and development method and is known as the second phase of the project.

Zambia Background Information

Zambia is a land locked country in south-central Africa with an area of 752,618 sq. km. and a population of 14.2 million people, making it the 17th largest African country in land area and 22nd largest in terms of population (“Zambia” 2014). Like most other African countries, Zambia’s history was greatly influenced by colonial occupation. It was first administered by the British South Africa Company and then by Britain until 1953, after which it was federated as Northern Rhodesia. In 1964, Northern Rhodesia became the independent nation known as Zambia. From its beginning as a nation, Zambia’s economy has been dependent on

its copper exports. The 1975 copper market collapse devastated the Zambian economy and had lasting effects until the late 90s (“Zambia” 2014). The struggling economy greatly effected Zambia’s unique wildlife that includes iconic mega fauna such as the African lion and black rhinoceros, due to the increase in illegal poaching. This strain on biodiversity led to the formation of many national parks and game management areas. In fact, the first president of Zambia President Kuanda was directly involved in establishing the LIRDP in response to the poaching problem.

However, since the time of LIRDP’s establishment in the mid-80s Zambia has gone through vast political changes. The soaring debt and inflation in 1991 led to deadly riots in the nation’s capital and eventually forced President Kuanda to resign. His resignation brought an end to one-party rule, but political instability between parties has existed ever since. Copper exports remain the most important financial income to the nation with a current GDP of 23.7 billion USD (“Zambia” 2014).

Although Zambia has one of the best preserved wildlife populations in the continent, tourism is still relatively small compared to countries like South Africa. According to IndexMundi, the country received about 815,000 tourists in 2010 that contributed 146 million USD to the economy (“Zambia country profile” 2013). This amount might seem miniscule related to the overall GDP, but it plays an important role in rural communities where populations are much smaller, communities like those surrounding the SLNP.

South Luangwa National Park and Lupande Game Management Area

The Luangwa Valley in Zambia consists of five national parks and seven game management areas. According to Simasiku et. al., “Game Management Areas (GMAs)

are wildlife estates in communally owned lands in which some wild animals are protected and used primarily for regulated hunting (consumptive tourism) and photographic safaris (non- consumptive tourism)” (2008 vi). These GMAs act as buffer zones to national parks. The SLAMU is located in the South Luangwa National Park (SLNP) and Lupande Game Management Area (LGMA) in this valley. Together the SLNP and LGMA cover around 15,000 sq. km. (Dalal- Clayton and Child 2003).



Figure 4.1: Map of SLNP (“Africa Safari” 2013)

The Luangwa Valley holds great value to Zambia for both economic and environmental reasons. Its size, low human population, and high populations of large and valuable wildlife species make it very important to Africa (Dalal-Clayton and Child 2003). The national park has 60 different animal species and over 400 different bird species, making it an exceptional location for safaris and bird-watching (“South Luangwa” 2014). The valley also has a plentitude of natural resources, such as hardwoods from its large area of forests and fertile soil surrounding the Luangwa River (Dalal-Clayton and Child 2003). Within the SLAMU is a human population of around 51,950, all residing in the LGMA (Zimba 2006). This population belongs to the Kunda tribe, one of the five distinct tribes that live in the Luangwa Valley. The tribe is organized into six separate chiefdoms: Malama, Msoro, Kakumbi, Makhanga, Jumbe, and Nsefu (Lewis, Kaweche, and Mwenya 1990). Figure 4.2 below depicts the territories of the 6 chiefdoms within the LGMA.

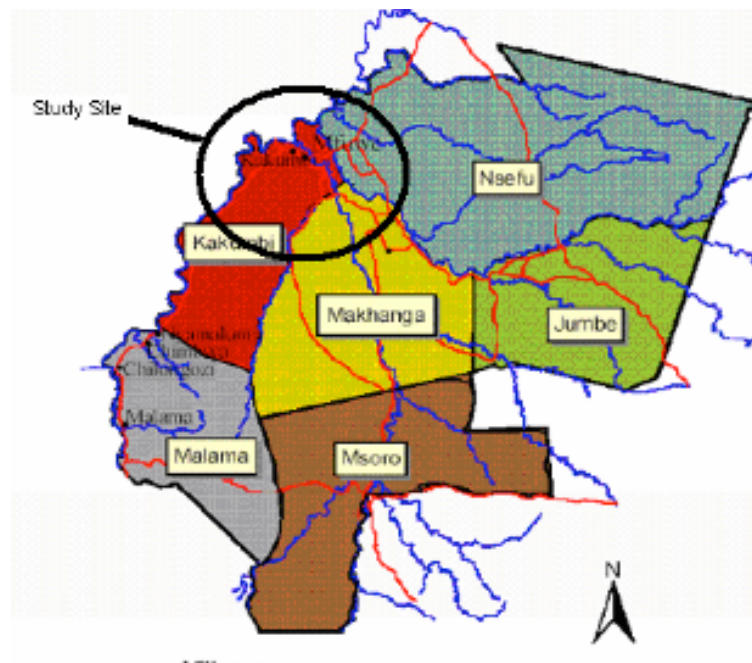


Figure 4.2: Map of LGMA Chiefdoms (Zimba 2006)

These chiefdoms are then subdivided into Village Action Groups (VAGs) each comprising around 200-500 members (Zimba 2006).

Phase 1: Creation of the LIRDP

The idea of the LIRDP emerged from a culmination of problems plaguing the country during the 1970s. Falling copper prices and foreign exchange earnings had a drastic effect on Zambian household income and cost of living. The government had to redirect its activities away from conservation towards the struggling economy, so illegal poaching of black rhinos and elephants increased (Zimba 2006). As a response, the National Parks and Wildlife Service (NPWS) organized the Lupande Development Workshop in September of 1983 in order to create management strategies that would stop the extreme poaching problem. Gujhadur explains that the catalyst for this meeting was the Lupande Research project of 1983, which “examined elephant management outside of the South Luangwa National Park and highlighted the need to involve local residents in environmental conservation projects” (2000 49). According to Zimba, the animal population was reduced from 90,000 in 1975 to barely 5,000 by 1988 (2006). The extreme reduction in wildlife was attributed to heavy poaching, which was linked to impoverished communities surrounding the park. The result of the workshop was the establishment of the LIRDP to address these issues.

The LIRDP was created under the community-based natural resource management (CBNRM) approach. Wainwright and Wehrmeyer define CBNRM as “a participatory model which provides the opportunity for conservation to produce tangible benefits for rural development” (1998 935). Zambia’s CBNRM program

stands out from others because it stems mostly from indigenous initiatives. It is also different from the typical CBNRM approach in that Zambia's infrastructure is severely underdeveloped. Therefore, most of the benefits are spent on basic needs like roads and schools (Gujhadur 2000). These CBNRM characteristics played an important role in the design of the LIRDP.

After the workshop, the Chipata group, individuals working for the government in the Eastern Province where the SLNP is located, submitted a formal proposal to the government. After receiving this proposal, the National Commission for Development Planning (NCDP) sought out the Norwegian Agency for International Development (NORAD) to fund a detailed project proposal. The finished proposal created a five-year budget of 25.5 million USD from 1986-1990. The proposal emphasized baseline research on agriculture and wildlife and outlined plans to combat poaching. The proposal also included the development of tourism to generate revenues for the communities. The project was moved to the jurisdiction of the ministry of finance (NCDP) and was formally initiated by the President in May of 1986.

The organization of the project was based on a top-down CBNRM approach. This included an elaborate hierarchy of committees. The inter-ministerial Steering Committee, which was chaired by the President, oversaw the project, but did not play an important role in decision-making. Under the Steering Committee was the Advisory Committee chaired by the Permanent Secretary of the NCDP. According to Dalal-Clayton and Child, the committee was established to "iron out the main features of the project - which remained along the basic design of the consultancy

proposals” (2003 61). It was this committee that created the elaborate system of committees so that the project could work well along existing government structures. The Advisory Committee was made up of technical sub-committees “to develop, approve and monitor the programs of the technical departments in the area (i.e. agriculture, cooperatives, tourism, and national parks and wildlife) - comprising staff of LIRD and government departments” (Dalal-Clayton and Child 2003 10). Next is the local leadership sub-committee (LLSC) which is made up of the six Chiefs, each with an advisor, the four Ward Chairmen, the Member of Parliament, and the Senior Administrative Officer of Mambwe sub-district. Finally, at the bottom is the representation of the project on relevant provincial and district councils.

Funding for the project comes from NORAD, the European Commission (EC) and the Ministry of Finance. NORAD’s portion funded running costs and four vehicles for the project staff, while the EC covered all other separate project proposals such as road development, anti-poaching work, and technical assistance (Dalal-Clayton and Child 2003). The Ministry of Finance covered the main project costs by establishing a revolving fund with an initial capital of ZK 1 million. The fund was set up so that all revenues raised by the project are divided as follows: 60% for the management of the program and project operations, and 40% for local development initiatives (Wainwright and Wehrmeyer 1998).

Zimba explains that the overall goal of the LIRD was “to use tourism in the SLNP to fund self-sufficient conservation through activities such as anti-poaching, ecological monitoring, road maintenance, etc. and to use wildlife to fuel grass-root empowerment in the Lupande GMA” (2006 20). The project, however, failed to

seriously develop the wildlife economy that was needed to sustain the infrastructure services of the project. Wainwright and Whermeyer found in their study conducted at the end of the first phase of the project in 1998 that no major strides were being made in the improvement of the standard of living of the people. They also discovered that participation levels and conservation knowledge was extremely low among community members. The only success of the project so far had been the effective law-enforcement that had secured the protection of elephants in the project area (Dalal-Clayton and Child 2003). It is clear that the top-down hierarchy of the first phase had little to no success in initiating community participation in conservation or community empowerment. A change was desperately needed.

Phase 2: Transition from LIRDP to SLAMU

Much of the problems associated with the LIRDP stemmed from the legislation of the National Parks and Wildlife Act. In order to correct these problems, the Act was repealed in 1996 and replaced with the Zambia Wildlife Act Number 12. This act transformed the Department of National Parks and Wildlife Service into the Zambia Wildlife Authority (ZAWA) (Simasiku et.al. 2008). The overall goal of the act was to make the community-based natural resource management approach the official approach of the country and provide an institutional structure that would allow for its success. Thus, the act established Community Resource Boards (CRBs) as the local institutions that would work with ZAWA. ZAWA's role in the CBNRM process is to "provide guidance and extension support to CRBs and promotes

partnerships with community, private sector and other institutions in the management of GMAs” (Simasiku et.al. 2008 2).

Thanks to the change in legislation both the funding and the organization of the project were completely restructured. Perhaps the most important change was the change in revenue allocation. Previously, the LIRDP received over half of the revenue for management purposes and the communities only received forty percent. Under the new policy, the Village Action Groups receive 80% of the revenues to be spent on community benefits and community-based resource management. The remaining wildlife revenues are distributed as follows: 6% to the six chiefs, 4% to the six Area Development Committees (ADCs) and 10% to the elected community body. The structure also changed in order to better serve the new goals of ZAWA. Area Development Committees were replaced by Community Resource Boards, which comprised 3-11 VAGs in their respective chiefdoms. Also, a woman representative was added to the LLSC for better representation (Dalal-Clayton and Child 2003).

A statement from the 1996 Annual Report explains the benefits of this change:

“The year 1996 has been a turning point for LIRDP’s CBNRM program. A clear policy has been developed. The old top-down paternalistic approach has been replaced by true community-based natural resource management with the devolution of financial benefits and increasing responsibility and management to communities.....One of the primary achievements in 1996, therefore, is that every household in Lupande GMA has received direct cash benefits, an achievement which has revolutionized attitudes towards wildlife. Only yesterday, a resident of Nsefu noted that they had been told of the benefits of wildlife conservation for many years but had never really seen them... Communities allocated over half their money to projects [and] because they have given up their own income and prioritized and chosen these projects themselves in a public forum, the projects too were ‘owned’ by them and implementation appears to have been significantly more efficient than

previously. The greatest benefit of the new approach, however, is that people are doing things for themselves, allowing community capacity and self-esteem to replace a crippling sense of helplessness and dependency. The management of the CBNRM Section has also been overhauled to use [participatory] performance-based management systems with clear objectives” (Dalal-Clayton and Child 2003 112).

As mentioned in the Annual Report, the new system provided direct cash distributions (tyolela) to community households. These direct benefits had drastic effects on community perception of the project and conservation. It allowed for community-empowerment and a sense of ownership that gave the project much more importance in the eyes of the communities.

The final goal of the new project, SLAMU, was to become self-sufficient. In order to do so, they implemented the “One Million Dollar Plan” that involved curbing expenditures, which totaled 1.8m USD in 1996, to meet the rising income curve, 300,000 USD in 1996, by the time NORAD withdrew its funding (Dalal-Clayton and Child 2003 21). Methods to accomplish this goal included cost-cutting that saved nearly 0.5m USD annually and increasing tourism to raise revenues. The process proved difficult because of the political roadblocks. However, Dalal-Clayton and Child point out its accomplishments compared to the rest of Zambia, “By the end of 1999, SLAMU was up to date with the collection of all fees and had only three problematic leases remaining. This compared to the rest of Zambia where 60% of operations had no lease documents, where 69% of lease fees were not collected, and where there were no records for daily fees” (2000 21). For the most part, the transition of the LIRD to the SLAMU had gone smoothly and proven successful. Figure 4.3 below summarizes the transition. The left side of the chart illustrates LIRD, depicts the first generation program; the thin arrow represents the revenue

earned from the GMA going to the LIRD, with a small portion then going to the chief. The right side of the chart depicts the new flow of revenues. The thick arrow illustrates the largest sum of money going directly to the VAGs, and smaller portions of money going to the ADCs and the Chiefs.

First Generation CBNRM Program

Second Generation CBNRM Program

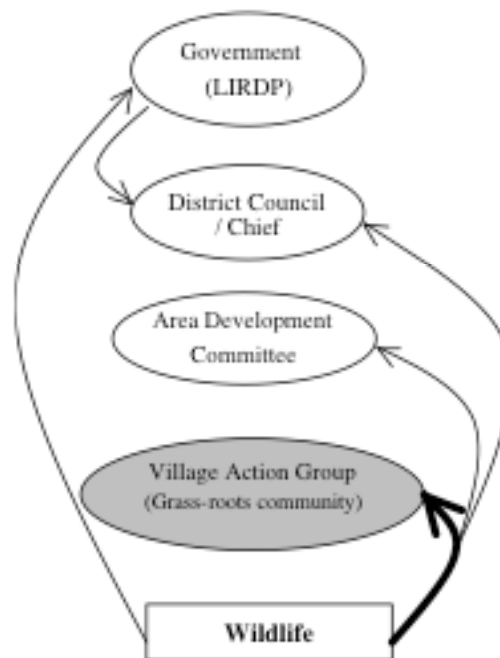


Figure 4.3: Summary of Changes from LIRD to SLAMU (Dalal-Clayton and Child 2000 16)

The LIRD/SLAMU has faced numerous challenges throughout its existence. Many studies conducted between 1995-2005 showed little hope for the project's success, citing failures in wildlife management, lack of participation, disappearance of revenues, and resistance from the government. However, the project survived and is a testimony to Integrated Conservation and Development Projects today. Edwin Matokwani, Director General of ZAWA explains, "The success story is premised on evidence that provision of adequate long-term funding support is a pre-requisite for an effective and well managed park" (ZAWA 2012). He contributes

the success of the SLAMU to the long standing relationship and support from the Royal Norwegian Government. The SLAMU Project formally ended in 2011. However, the institutions and programs of the SLAMU have been established to live on.

Conservation and Development Activities

Together the Zambia Wildlife Authority and the Royal Norwegian Embassy created the final report of the SLAMU, detailing its legacy that will continue within the SLNP and LGMA (ZAWA 2012). I have read the report and identified the three important aspects of the project: objectives, conservation activities, and development activities. The final report outlines the six objectives that were accomplished by the program as follows: (1) To establish an effective park management and financial structure and enhance the capacity of staff to manage the park; (2) To curb illegal hunting of wild animals in the designated National Park and reverse the destruction of critical habitats; (3) To provide acceptable working and living conditions for the staff and expand and maintain road system in the National Park; (4) To establish ecological research and monitoring program; (5) To increase revenue generated from the SLNP; (6) To enhance the capacity of local communities in GMAs to protect and utilize wildlife and natural habitat in a sustainable way.

These objectives were achieved by the implementation of several different conservation and development activities that were outlined in the final report. The first conservation activity, park administration and management, addresses the first goal: “to establish an effective park management and financial structure and enhance the capacity of staff to manage the park” (ZAWA 2012 13). In order to

accomplish this, the park administration first surveyed the boundaries of the SLNP and the surrounding GMAs and secured the western boundary by reopening three outposts. A general management plan was then developed and approved in 2010 to provide a structure for the program. Project operations were improved with the procurement of new office equipment and internet service, as well as the introduction of the Sun System Accounting and Licensing System. Not only was the program able to implement all of these changes, but they were also able to do so by using only revenues generated internally.

The second conservation activity, resource protection, addresses the second objective: “to curb illegal hunting of wild animals in the designated National Park and reverse the destruction of critical habitats” (ZAWA 2012 15). The park amped up the law enforcement program by implementing a scheduling system that placed patrol groups in all the zones at all times. They also established the Monitoring Illegal Killing of Elephants (MIKE), which was staffed by officers that were trained in the use of modern equipment like GPS. Furthermore, the park received a helicopter to patrol the park and GMAs. Finally, in accordance with resource protection, field officers participated in conducting prescribed burning and containment of fires in the park and GMAs.

Another important conservation activity that addresses the fourth goal is the Wildlife and Research Monitoring Program. This program basically acts as an overseer of all conservation activities within the park by conducting research. Some of the monitoring aspects of the program include the monitoring of animal health and mortality, of population and distribution of large mammals, of the contractual

culling of 1,000 hippos, of MIKE, of human-wildlife conflicts, of safari hunting, and of spatial occurrence of bushfires. The program also conducted research on the population dynamics of carnivores in the park, collected climatic and hydrological data on the turbidity and water levels of the Luangwa River System, established baseline data from vegetation surveys, and undertook herbarium maintenance through the replacement of preserved specimen. These monitoring activities play an extremely important role in ensuring the success of ICDPs by acting as a watchdog of the conservation programs.

The final conservation aspect is the CBNRM aspect of SLAMU that seeks to accomplish the final objective, “to enhance the capacity of local communities in GMAs to protect and utilize wildlife and natural habitat in a sustainable way” (ZAWA 2012 24). The CBNRM approach that was the bases for the creation of the LIRD/SLAMU focuses on the involvement of communities in conservation and resource management. In order to foster this involvement, the SLAMU involved the community in every step of the conservation process and provided workshops and training to educate communities so that they can make better-informed decisions. For instance, the SLAMU conducted conservation awareness programs in every VDC and trained 36 community based hunters and 24 members from ten different CRBs in problems of animal control. Also, Village Scouts and Community Scouts are trained and utilized to monitor resident and non-resident hunting. CRB members also underwent training in gender mainstreaming, project proposal writing, leadership skills, and project implementation management.

As a way of accomplishing the remaining goals, SLAMU conducted many different development activities. The first of these is infrastructure development. In order to improve infrastructure, the SLAMU built new headquarters and 26 medium cost houses at the outposts, five airfields to facilitate tourism and for management purposes, and new roads to improve the Park's accessibility. Health and education have also been addressed thanks to the revenue generated by tourism. For instance, the Luangwa Safaris Association members have provided one of the health centers with a fully qualified doctor and clinic staff, and they have supported events such as world AIDS day, Child Health Day, and HIV/AIDS health awareness training. Furthermore, five local schools in the Lupande GMA are receiving material and financial support from five lodge operators and the South Luangwa Conservation Society. Norman Carr Safaris alone has used 450,000 USD to support 1,500 pupils and 70 college students throughout their education.

Tourism development is the main development activity that is contributing financially to all of the accomplishments outlined above. Tourism facilities that were contributed by the SLAMU include: 18 seasonal bush camps, four safari camps, and 16 lodges. By the end of 2011 revenue from these establishments increased more than 1000%, giving the SLAMU financial independence. The report also cited that investment potential in the area has increased due to enhanced marketability and the increased quality of tourism products.

However, more important to note is the involvement of the communities in this tourism success. According to the report, photographic safari lodges and safari hunting camps employ approximately 900 locals and the SLNP and GMAs employ

95. Over 100 local people are registered as safari guides, having been trained by the Luangwa Safari Association in partnership with the SLAMU. Also, the tourist industry has trained hundreds of chefs, carpenters, barmen, housekeepers, mechanics, and other professions. Tourism has also improved local communities education and income status. The report states that many local people now possess diplomas in accountancy, hospitality, food and beverage and hotel management that allow them to be employed locally or elsewhere if desired. Local people who are currently employed in the tourism industry earn an average of 2m ZMK per month or 400 USD. The report also notes that although equal employment opportunities exist, more emphasis is placed on the employment of women in order to reduce the current imbalance in equality.

Finally, the tourism industry has led to community empowerment through its partnerships with local businesses. The report points out several examples of entrepreneurs that have greatly benefited from the influx of tourism. For instance, the women from the local communities in Mfuwe have set up a market to sell vegetables and other commodities to both lodges and the local people. The KK Centre for Practical Agriculture provides fresh vegetables to many of the lodges, and a local producer supplies eggs. Local transporters are contracted to transport equipment and materials, and local tradesmen are contracted to undertake building work. Tribal Textile is a local company producing high quality textiles sold mostly to tourists and overseas. They employ around 100 people who earn an average of more than K1 million (200 USD) per month. Finally, there has been an increase in the number of local entrepreneurs providing services to the tourist industry such as

transport, vehicle workshops, and auto spare parts. Other service providers within the SLAMU include two local banks, a post office, airport, and water and electricity.

Conclusion

The LIRDP and SLAMU reflect the necessity of incorporating grass-roots initiatives and the community empowerment framework into ICDPs. The LIRDP was created under good intentions, through the Community-based Natural Resource Management policies of the Zambian government. However, the way the CBNRM functioned within the LIRDP was not actually management centered on community input. Instead, the project was organized from the top-down, allowing the government agencies and chiefs to make the important decisions and mandate policies without community input. The efforts of the LIRDP failed because the community had no sense of ownership or investment in the conservation or development efforts.

The transformation of the Department of National Parks and Wildlife Service into the Zambia Wildlife Authority (ZAWA) refocused community-based natural resource management upon the Village Action Groups which were reorganized into new local institutions called Community Resource Boards. The CRBs transferred responsibility to the communities, and the new devolution of financial benefits gave households direct monetary benefits from GMA revenues. Because, the communities had a new-found sense of ownership, dedication to conservation efforts improved. Under the new system, community members are trained in resource management, and resource protection and animal population health improved within the SLNP and LGMA.

Not only has conservation improved thanks to the new community focus, but so has development. Ecotourism improvements have given the SLAMU financial independence and employed almost 1,000 locals. The revitalization of the SLAMU is a testimony to the possibility of a symbiotic relationship between conservation and development facilitated by rural communities.

Chapter 5

Casa Matsiguenka

Casa Matsiguenka is a unique ICDP in that it involves a smaller population of locals and only one development activity, an ecolodge. Located in the heart of the Peruvian Amazon, Casa Matsiguenka demonstrates the extent to which ICDPs can be adapted and implemented to serve a specific area and group of people. Whereas the ACAP in Nepal involved seven area management units and the SLAMU in Zambia included six chiefdoms, the Casa Matsiguenka project only serves two relatively small villages. Nevertheless, Casa Matsiguenka still shares the vital philosophies present in both the ACAP and the SLAMU, which has allowed for its success as an ICDP.

Peru Background Information

Peru is considered the third most “mega diverse” country in the world due to its biological diversity. Peru ranks first in the largest number of fish species (10% of the world total), second in the number of bird species, third in amphibians, third in mammals, and fifth in reptiles (Convention of Biological Diversity 2014). This enormous, diverse group of species can be attributed to Peru’s three different, distinct ecosystems: the Andes mountain range, rainforest, and coastal region. Not

only does Peru have exceptional biodiversity, but it also has extensive cultural diversity. The country contains approximately 92 different ethnic groups, with a total population of about 30 million (“Peru” 2014). Out of the 92 different ethnic groups, 51 of these groups are indigenous to Peru.

Historically, these indigenous groups have had little representation in Peruvian politics. This began to change in 1969 when General Juan Velasco initiated a radical agrarian reform campaign that included new peasant community laws. According to the World Directory of Indigenous Peoples, “these laws granted residents of the new, autonomous ‘peasant communities’ collective rights to govern a geographically identified area of land as Peruvian citizens” (“Peru Overview” 2013). Under these new laws, and with the help of many national NGOs, Peru’s indigenous groups were able to demarcate and title their lands. The Peruvian Constitution of 1993 further promotes indigenous rights in its declaration of the state’s duty “to protect ethnic and cultural diversity of the nation” (“Political Constitution” 2009).

Because of Peru’s biological diversity, ecotourism is now the second largest contributor for foreign currency after mining (Herrera 2006). According to the World Bank, Peru had over 2,500,000 overnight tourism visits in 2011 (“Peru World Bank” 2013). This influx of revenue and visitors to Peru has proven to be extremely beneficial to the country, but often times, the indigenous groups who live in these areas do not receive any of the benefits. Such was the case in Manu National Park, which led to the establishment of the ICDP, the Casa Matsigenka eco-lodge.

Manu National Park

The Manu National Park or Parque Nacional del Manu (PNM) was founded in 1973 and received international recognition as a Biosphere Reserve in 1977 (Alfaro and Nieto 2012). The park is located in the Manu and Paucartambo provinces and ranges from the eastern slopes of the Andes deep into the Peruvian Amazon.

According to UNESCO, “the biological diversity found in Manu National Park exceeds that of any other place” (“Manu National Park” 2013). The 1.5 million-ha park is positioned in the Amazon River basin, and includes almost all of the Manu River watershed and the tributaries of the Alto Madre de Dios River. The park also contains three different ecoregions: puna montane grasslands and shrublands biome, high jungle forest, and tropical Amazon forest. 800 bird species and 200 mammal species including the jaguar, the giant river otter and the giant armadillo have been identified within the park (“Manu National Park” 2013).

The PNM is also home to very unique cultures. The Matsigenka people and a few other ethno-linguistic groups living in voluntary isolation can be found within the park (Alfaro and Nieto 2012). The Matsigenka people are the most established ethnicity within the region, having lived there since before 200 BC (Herrera 2006). Within the Matsigenka ethnicity are two relatively large communities, Tayakome and Yomibato, the rest of the Matsigenka people are scattered in isolated, smaller groups throughout the park. These Tayakome and Yomibato communities were officially established in the 1950s by the Summer Institute of Linguistics, a group of Protestant missionaries that worked in the area from the early 1950s until the establishment of the PNM in 1973 (Alfaro and Nieto 2012). However, they were not

recognized by the government until much later, and even then still did not hold any land titles. The total human population within the park is recorded at around 700, but the total settled population, the two communities, lies at 421 (Ohl-Schacherer et. al. 2008). Their large presence within the park has made them the focus of the park's indigenous policies, especially after the early 1990s (Shepard et. al. 2010).

Ecotourism in the park began in the 1980s with visitation restricted to the lower part of the Manu River. By 2002, annual visitors reached around 3,000 (Ohl-Schacherer et. al. 2008). The first ecotourism structure within the park was an ecotourism lodge built by a tour operator based in Lima in 1988. This was the only structure of its kind within the park, and it was granted through a concession arrangement with the park, while all other operators were still restricted to temporary campsites. In 1991, nine Manu tour operators in Cusco formed Ecotur Manu, a trade association with the stated purpose of improving the professional quality of ecotourism within the park (Alfaro and Nieto 2012). In 2000, this group successfully lobbied the park administration for exclusive access, agreeing to pay annual concession fees in addition to the entrance fee for each tourist. The typical excursion into PNM costs between \$90-\$200 per day and lasts between 5-10 days.

The map below (Figure 5.1) depicts PNM and the park zoning system. 1a, 1b, 2a, and 2b are the location of the Yomibato and Tayakome communities, and #17 denotes the location of their ecotourism lodge.

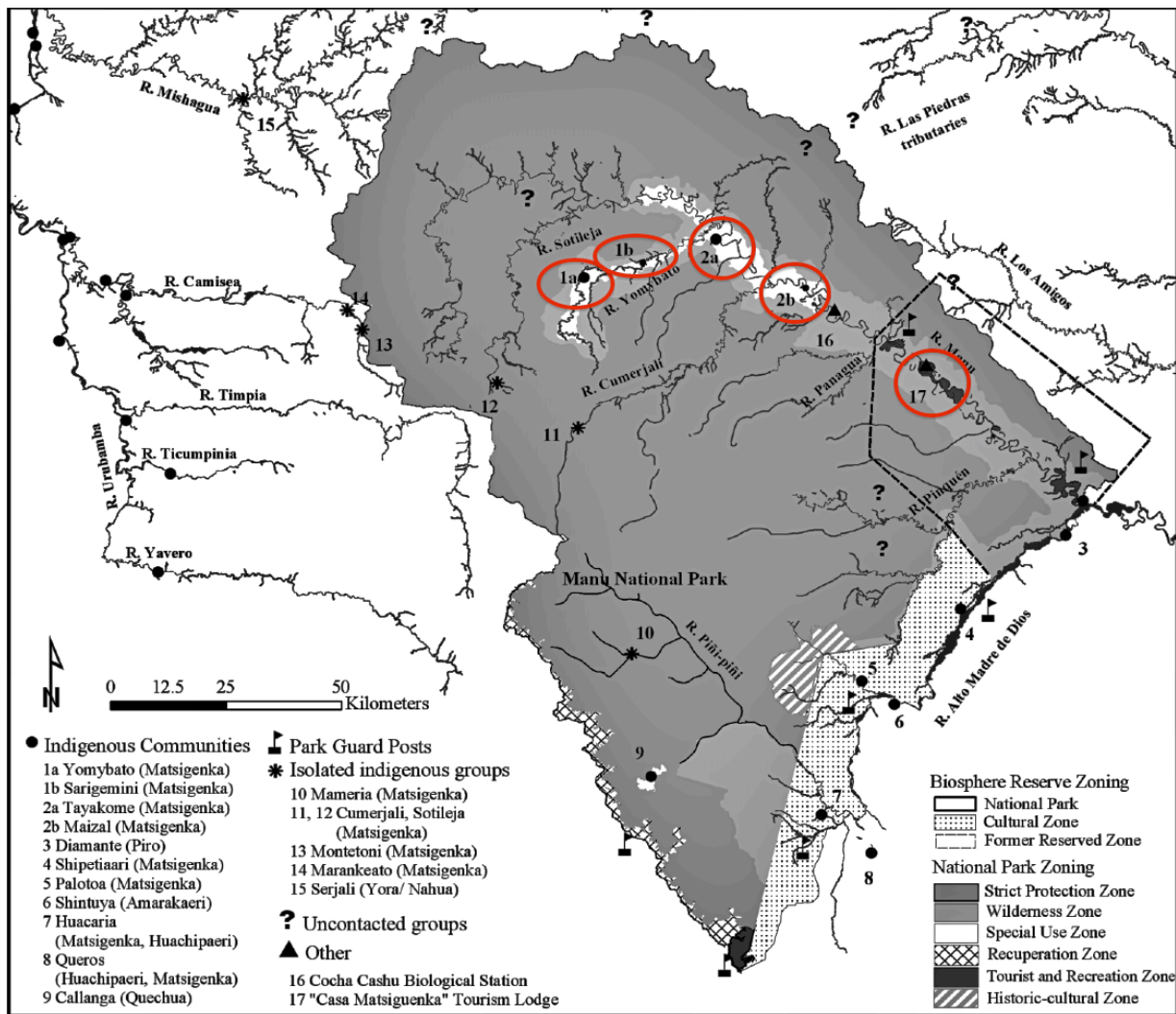


Figure 5.1: Map of Manu National Park (Shepard et. al. 2010)

The Creation of La Empresa Multicomunal Matsigenka (EMM)

The creation of the PNM was at first thought to be beneficial to both the conservationists and the indigenous people within the park boundaries. It was not only going to preserve the biodiversity, but it was also going to preserve the isolated indigenous cultures from westernization. In 1985, the PNM adopted what they called the "Master Plan." According to Shepard et. al., "[The plan] considers only two acceptable options for native populations: conserve their traditional lifestyles and remain in the park, or opt for Westernization and leave the park" (2010 279). This

plan would contribute to people-park conflicts in the future. Another issue the Matsigenkas had with the park was its decision to expel the Protestant missionaries from the Summer Institute of Linguistics (SIL). The idea behind this expulsion was that the indigenous people would revert back to their traditional way of life after outside influences were removed. However, the 10 year occupation of the SIL had already established economic, education, and health-care necessities that the indigenous could not do without (Shepard et. al. 2010). The park did nothing to compensate for this loss. The education, and more importantly, the health status of the Matsigenka people greatly declined. The relationship between the people and the park followed suit, quickly deteriorating.

In the late 1980s the park system of Peru was redesigned and centralized under a semi-autonomous institute affiliated with the Ministry of Agriculture, known as the Institute of Natural Resources (INRENA). Around the same time, a North American biologist from Wildlife Conservation International conducting research in the park began working with the Matsigenka people. He introduced the idea of a tourism initiative that the two communities could work together on in order to generate revenues to be invested back into the communities (Herrera 2006). In 1997, the Tayakome and Yomibato communities officially established the Empresa Multicomunal Matsigenka (EMM).

Policy Framework

During the beginning discussions of the project the two communities enlisted the help of the Amazon indigenous rights group, el Centro para el Desarrollo del Indígena Amazónico (CEDIA). In 1994, CEDIA proposed to INRENA a concession of

40,825 hectares of land so that the two communities could build an ecolodge. The project was not approved due to a lack of technical and economic support. In 1995, the leaders of the communities, with the help of the Matsigenka regional organization, Consejo Matsigenka del Río Urubamba (COMARU) wrote a letter to the Ministry of Agriculture to complain about the negligence of the park. They also wrote a letter to the president at the time, Alberto Fujimori, asking for immediate approval of the lodge. A national newspaper picked up the story and helped gain national attention of the Matsigenka struggle. The surmounting pressure eventually led INRENA to co-opt the indigenous ecotourism concept by creating a lodge proposal using fund from the UN Global Environment Facility (GEF) and the German Technical Cooperation (GTZ) (Ohl- Schacherer et. al. 2008).

The eco-lodge was named 'Casa Matsigenka' and is owned by the legal entity, EMM. The EMM is made up entirely of indigenous employees, except for the only non-indigenous employee who handles logistics and marketing through a Cusco-based administrator. Casa Matsigenka is not a part of Ecotur Manu, which has caused it many problems since its construction. As stated earlier, Ecotur Manu is a civil non-profit organization founded in 1991 that is comprised of all nine firms that are licensed to operate tourism within the park. According to the Ecotur Manu website, "to operate in Manu you must be a legitimate company and have a license to operate there. The license requires the companies to have good conduct, and must be renewed every year with the Ministry of Industry and Tourism and presented to the National Park Service, INRENA" ("Ecotur Manu" 2013). The EMM and Casa Matsigenka are not a part of Ecotur Manu, which has created many

hindrances on their business. For the first eight years of its existence it was not granted full operator status, which meant it was not permitted to market, sell, or run its own tour groups except for sporadic experimental groups (Ohl- Schacherer et. al. 2008). Its only income came from its lodging contracts with the nine Ecotur Manu tour operators until it was finally granted full operator status in late 2006.

The actual construction of the lodge began in 1997 at Cocha Salvador. The design incorporated native architectural elements. In a study on indigenous architecture, Olortegui explains that the project was designed using Matsigenka patterns and proportions while incorporating alternative systems in sanitary and electrical installations and renewable energy sources (2007 1220). The lodge consists of different indigenous houses and open spaces linked by trails. The construction mainly consisted of local materials and indigenous techniques apart from a few modern innovations for maintenance and durability reasons. Construction was carried out by crew of Matsigenka workers with oversight by the Peruvian Association for the Conservation of Nature (APECO) and professionals. Construction was completed in 1998 with a total of 24 beds, and the first tourist groups arrived in 1999.



Figure 1.2: Matsigenka lodge (Herrera 2006)

Project Structure

The EMM and the ecolodge are run by two managers known as *gerentes*. Each community elects one manager every two years. These managers work together with the supporting institutions (GTZ/FANPE, INRENA, and APECO). During the construction phase, the managers' main responsibility was to organize the community participation in the construction of the lodge. After construction was completed, manager duties included: informing community about problems, representing the EMM at any meetings with or outside the community, constant radio communication with the assistant manager in Cusco, training new staff on lodge maintenance, managing the operation of the lodge, welcoming and guiding the tourists, administering the handicrafts the communities have sent to be sold in the lodge and delivering the profits to the community producers (Herrera 2006).

The assistant manager of the EMM is based in Cusco at headquarters set up by FANPE. The assistant manager is a tourism specialist hired by FANPE. The assistant manager's responsibilities include: coordinating with the various institutions such as INRENA and tour agencies, ensuring that legal requirements, such as accounting, comply with the law, conducting bank transactions, maintaining daily radio communication with the managers, reporting to managers and communities about profit, and assisting the managers in making decisions (Herrera 2006).

There are three organizations that have constant contact with the EMM and are extremely involved in the project on a day-to-day basis. The first of these organizations is INRENA. The organization is headquartered in Lima, and as stated

earlier, is responsible for the administration of protected areas in Peru. In relation to the EMM, INRENA makes sure that the lodge and other initiatives are following the protected area laws. The second organization involved in the project is the Fortalecimiento de las Areas Naturales Protegidas por el Estado (FANPE). FANPE is a project funded by the GTZ to support the Peruvian national park system. FANPE's involvement in the EMM includes the hiring of the assistant manager and managing the project's budget. The third organization involved with the EMM is APECO. As mentioned earlier, APECO oversaw the construction budget. It also organized five different training workshops during four years to strengthen the cultural identity and transfer tourism knowledge.

Conservation and Development Activities

Casa Matsiguenka differs greatly from the other ICDPs that we have looked at so far because it is much smaller in scale. Whereas the other protected areas and projects are dealing with much larger human populations, PNM's population is very small. This particular project only involves two villages with a total population of around 420. Because of this smaller size, less organizational structure is required, and communications between the people and NGOs, the government, and park administration is much more direct. In terms of promoting conservation, the Matsiguenka people already lived a fairly sustainable, non-destructive lifestyle that did not use up or threaten the biodiversity. Instead, conservation goals focused more around repairing the relationship between the park administration and the communities and ensuring that the communities were able to live in accordance with park policies.

Therefore, in assessing conservation success of the project it is important to look at monitoring statistics and human impact as a result of the lodge construction and incoming tourists. Since the opening of the lodge, studies have found that the giant otter population has remained stable and that other environmental impacts have not been seen (Ohl- Schacherer et. al. 2006; Enriquez and Morante 2004). Furthermore, because the lodge is located in a Reserved Zone, designated for tourism and research only, no hunting or cultivating is allowed, and fishing is a right only held by the indigenous people. Through the lodge activities, the Matsigenka people have come to respect these restrictions because now they benefit from biodiversity conservation (Herrera 2006). Overall, the project has helped the communities understand and get along with park policies personnel and created an avenue in which they can work together.

As far as development goes, the lodge has significantly improved the communities' quality of life. The creation of the national park, and the subsequent expulsion of the SIL, left the Matsigenka people without and westernized support that they had come to count on. They had two choices: revert back to their traditional ways of life or move away in order to find an income. The lodge provided another solution to appease both the conservationists of the park and the communities. It has allowed for sustainable development that in turn has fostered a sense of ownership of the conservation efforts among the local people.

The first, and most obvious, way in which the lodge has helped with development is its contribution to jobs and income. The Tayakome community President in 2005 stated, "Before the Matsigenka lodge existed I had to go to Boca

Manu to look for a job to be able to get batteries, a mosquito net and other things. Now we only need to go to Salvadorcillo [the lodge] to work and earn some money” (Herrera 2006 25). A study conducted by Ohl in 2005 revealed that 95% of the income of Matsiguenka households comes from tourism activities (Ohl 2005). In order to ensure equal job availability, positions are set up on a rotating system in which four people, two from each community, work at the lodge for a four to six month period. Overall, average annual household income has increased from \$5 to \$152 in the Tayakome community and from \$1 to \$107 in the Yomibato community (Ohl 2005). Some of the benefits from the lodge have also been put towards transportation, school supplies, and medical care improvements.

Along with the increased income, the project has also provided a great amount of institutional strengthening, community empowerment, and cultural appreciation. The NGOs involved, especially APECO, established various workshops and educational programs to train the indigenous communities in how to work with tourists and tour agencies, improving their reading and writing in Spanish and mathematic skills, and understanding the basic concepts of the monetary system, like enterprise, investments, utility, banking, job scheduling, and management (Herrera 2006). These workshops in turn have strengthened community organization and created a sense of pride in their work. One of the managers of the EMM in 2005 explained, “Some NGOs thought that we would not be able to manage a lodge because we speak little Spanish... but we want to do it ourselves... if it fails we’ll not that we cannot do it. But Casa Matsiguenka remains open, so that must mean we can do it and now we do not need to leave our land or our children”

(Herrera 2006 30). Their success was reinforced by their invitation to the World Summit of Ecotourism in Quebec in 2002 and the award presented by the Peruvian President for their example of organization and successful rural development.

The final aspect of development success is the cultural preservation and appreciation that has resulted from the lodge construction. Often times in ecotourism ventures that offer “authentic” cultural experiences, indigenous communities will offer what they think the tourists want to see, and the people become attractions. The Matsigenka project wanted to avoid this situation, and instead, create tourist-native relationships. Herrera explains this type of relationship is accomplished by allowing tour agencies to provide most of the tourism services (transportation and food supply), so that the indigenous people can provide the lodging and guided tours (2006). The EMM also hosts ethno-ecology workshops for international students, as an educational aspect. These methods prevent the indigenous from becoming tourist “servants” and allow them to have control over and pride in their culture.

Case Studies

I chose the following case studies because they examine specific aspects of the project that have contributed to its success. The first of these case studies focuses on the partnerships involved in the creation and implementation of the eco-lodge. The second study focuses on financial success versus success in terms of goal achievement.

In the first case study on the Casa Matsigenka project, “Community-based enterprises: The significance of partnerships and institutional linkages,” Cristiana

Seixas and Fikret Berkes examine 10 different ICDPs in order to determine the nature of institutional linkages and how they contribute to its success. The 10 projects were drawn from the Equator Initiative, one of which was the Casa Matsiguenka Eco-lodge. The purpose of the study was to “conduct an analysis across cases to explore: (i) the number and kind of linkages; (ii) the role of partnerships; and, (iii) the nature of linkages in community-based enterprises” (Seixas and Berkes 2010 3). The results for the Casa Matsiguenka case are displayed below. The chart below (Figure 5.3) illustrates the eventual phasing out of certain

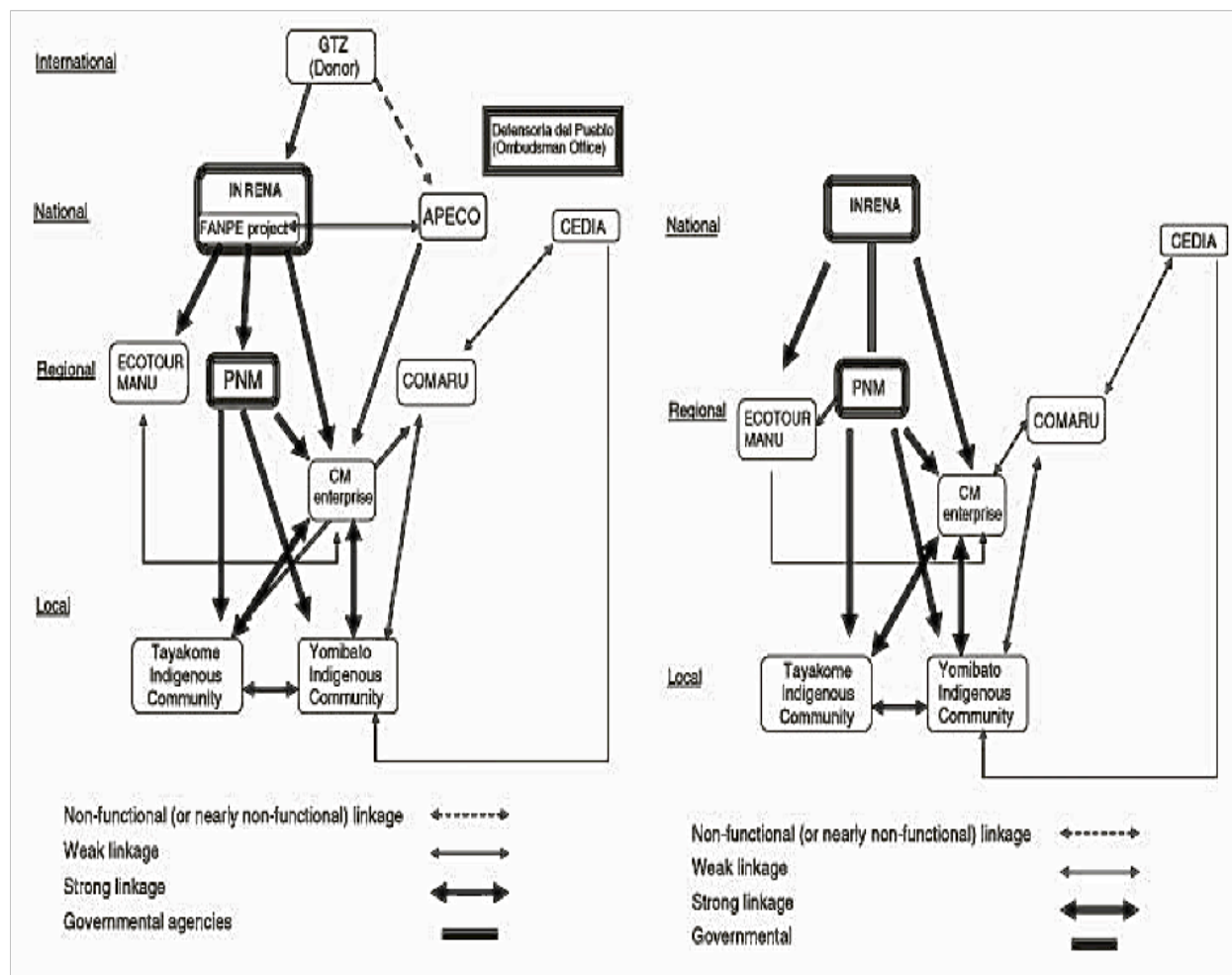


Figure 5.3: Institutional Interactions of the Casa Matsiguenka project. The first chart depicts the development stage (1996-2003) the second chart depicts the project after 2003. (Seixas and Berkes 2010 9)

partners as the project evolves. This phasing out is a sign of project success because it shows that the project is becoming self-sustaining. In the Casa Matsiguenka project, the international funding from GTZ and the building and training of the lodge and employees by APECO was completed in 2003. After this phasing out, the lodge is run primarily by local community members in conjunction with INRENA and some indigenous NGO groups. The second case study entitled "Indigenous Ecotourism in the Amazon: A case study of 'Casa Matsiguenka' in Manu National Park, Peru" presents a financial overview of the project. Ohl- Schacherer et. al. explain,

"our aim is to answer three questions that underlie all attempts to use ecotourism as a means of funding conservation activities. (1) Can an indigenous ecotourism business be financially viable? (2) Can an indigenous ecotourism business provide sufficient and well-distributed income for the indigenous population involved? (3) Are there any non- monetary benefits of the ecotourism business that accrue to the local communities?" (2010, 2).

The researchers conducted an analysis of the lodge accounting books from 1997-2000, identified trade goods present in all households in 2002 and categorized them into subsistence necessities, and took inventory of annual community consumption necessities (radio, boats, and supplementary medical and educational costs). Then they divided lodge operation costs into fixed (salaries, office expenses, upkeep) and variable costs (tax, material consumption depending on number of tourists). Finally, the current lodging fee per night (\$35) was used to calculate the number of bed-nights needed to achieve financial break even, and to cover both individual and communal needs.

In a narrow, short-term analysis, the researchers found that the return on investments has been about one-third of what could have been achieved if the lodge

project was foregone and the start-up grant was invested in an account and the interest was paid directly to the communities in exchange for conservation actions. However, they found in a broader analysis that “the modest income and slow pace of business so far has permitted gradual social and economic adaptation on the part of culturally conservative indigenous communities” (Ohl- Schacherer et. al. 2010, 1). In terms of conservation, the researchers found that the project has promoted a friendly, collaborative relationship between the communities and park administration, and that a direct payment scheme might not have achieved these benefits. The researchers conclude that, while short-term benefits cannot be seen due to a troublesome business start-up plan, if the long-term business viability of the lodge can be secured then the institutional strengthening of the communities and the improved relationship between the communities and the park will fulfill the “original goal of promoting biodiversity while providing development” (Ohl-Schacherer et. al. 2010, 10).

Conclusion

The Matsigenka people have had a long history of marginalization in Peru, which was especially the case during the establishment of the Manu National Park and later in EMMs exclusion from Ecotur Manu. Nevertheless, a strong community will and commitment from several NGOs led to the creation of Casa Matsigenka. The Casa Matsigenka project, like the previously discussed ICDPs, seeks to reconcile the needs of the national park with the needs of the local communities. However, it differs in that instead of having the majority of support come from one NGO, its collaboration is spread among several different NGOs. INRENA ensures

conservation success of the lodge; FANPE provides administrative and organizational support; and APECO oversees capacity-building and institutional strengthening.

Because of the smaller size of the project, its organizational structure is much simpler than previously discussed ICDPs, and the communication between the park, communities, and NGOs is much more direct. This direct communication promotes local control over decision making. Furthermore, the project provides a large sense of community empowerment because it is run completely by the local communities. They manage and staff the lodge, comprise committees that make important business decisions, and are trained as forest guides. Thus, there is not only a sense of ownership among the communities, but also actual ownership of the project. Each household receives direct monetary benefits from the ecolodge income, and some income goes towards community improvements such as transportation, schools supplies, and medical care.

The project has also improved community-park relations in two ways. First, because the success of the ecolodge is dependent upon conservation, local cooperation with park policies has significantly improved along with local attitudes towards conservation in general. Second, the ecolodge has provided alternative income to replace the traditional, consumptive livelihoods of the Matsigenka people such as fishing and hunting.

Finally, Casa Matsigenka has fostered cultural appreciation and pride among the Matsigenka people. The project frames the indigenous employees of the lodge as teachers instead of servants to tourists. To reinforce this framework,

APECO provided several workshops on how to work with tourists without compromising cultural values or authenticity. Through housing the ecotourists, the communities learn that it is their unique way of life, history, land, and hard work that attract tourism and make their business successful.

Chapter 6

North Rupununi District Development Board

The North Rupununi District Development Board (NRDDB) is a different form of ICDPs in that first and foremost it acts as a regional representative body for the indigenous communities of the North Rupununi District, a relatively isolated natural area of the Rupununi savannahs. The NRDDB can be considered an ICDP because it organizes local communities in a bio-significant area to link biodiversity conservation and social and economic development. Its key function is “to serve as the formal consultative and decision-making body on behalf of the district stakeholder communities in the implementation of the Iwokrama International Rain Forest Program,” a program that facilitates the conservation of the North Rupununi District. (“About the NRDDB” 2013). Not only can the NRDDB be considered an ICDP, but it can also be considered a success. In what follows, I will explain the creation, implementation, and achievements of the NRDDB ICDP.

Guyana Background Information

Guyana, located on the north eastern coast of the South American continent, is the third smallest country in South America at 214, 970 sq. km with a population of 739, 903 (“Guyana” 2014). Of this population, 9.1% are Amerindian, who live

almost exclusively in the interior of the country while the majority of the population lives in the coastal region of the country (Mistry et. al. 2010). Guyana contains a diverse number of tropical ecosystems, including the northern region of the Amazon basin. These ecosystems provide an enormous number of natural resources and biodiversity that includes over 800 species of birds, 200 species of mammals, 500 species of fresh water fish and 200 species of reptiles and amphibians.

Up until the early 1990s, Guyana blocked foreign investment, protecting their ecosystems and preventing the destructive and unsustainable extraction of natural resources (Mistry et. al. 2004). However, in the early 1990s Guyana underwent an economic liberalization that catalyzed an influx of foreign investment and exploitation of natural resources through logging and mining concessions. These concession grants also raised questions over land tenure among indigenous communities living in the interior. Titled villages have some rights over their land resources. However, non-titled communities do not have formal rights and are under the legal jurisdiction of a mix of governmental agencies. Because of this, some communities live on or next to land that is given as a concession to logging, mining, resort development, or conservation areas. (Wetlands Partnership 2008).

Compared to the rest of South America, Guyana is lagging in its conservation efforts. There National Protected Area System was not established until the passing of the Protected Areas Act in 2011. The system now includes three legally protected areas:

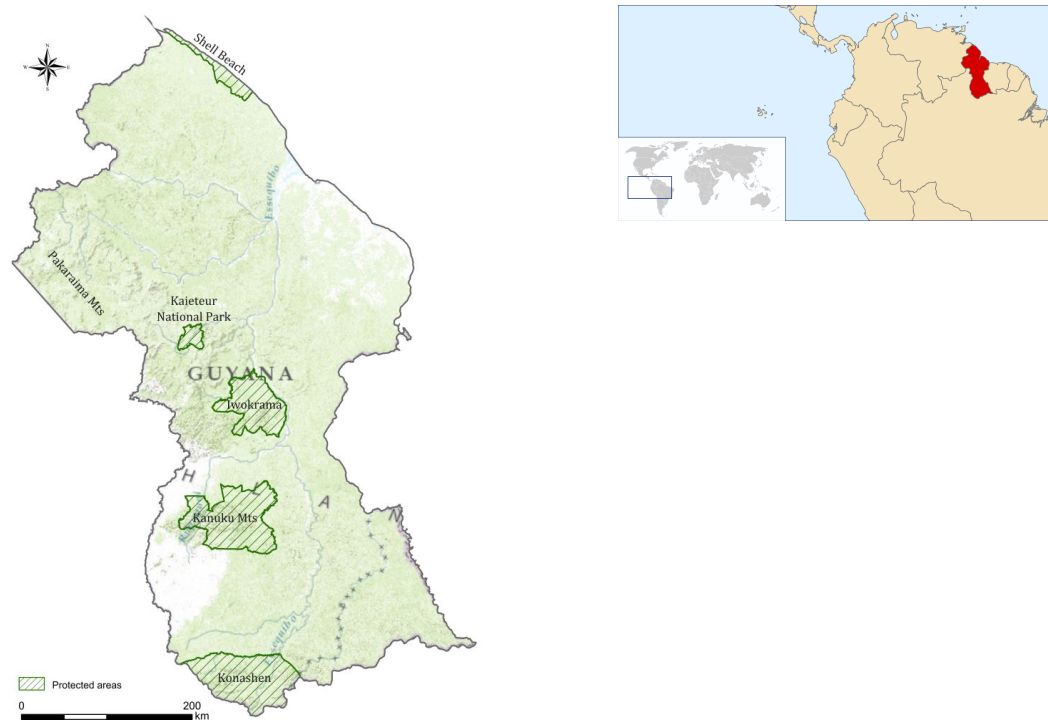


Figure 6.1: Map of Guyana's Protected Areas ("Guyana Conservation Network" 2013)

Kaieteur National Park, Iwokrama International Center for Rainforest Conservation, and the Konashen District, and two pilot-projects, Shell Beach and Kanuku Mountains ("Protected Areas" 2013). The map in Figure 6.1 above shows the distribution of these protected areas. With these protected areas, 5.3% of Guyana's land mass is under protection ("PAs in Guyana" 2013).

North Rupununi District

The North Rupununi District refers to the northern portion of Rupununi savannah region of Guyana. It is located in central Guyana, and contains a portion of the Iwokrama Forest. The Iwokrama is a national protected area managed by the Iwokrama International Center (IIC), an international non-profit established under a joint mandate with the government of Guyana. The rainforest is divided into a wilderness preserve (the portion highlighted in green in figure 6.2) and a

sustainable utilization area (surrounding area and location of the villages in figure 6.2). The IIC was instrumental in establishing the North Rupununi District Development Board and continues to partner with them on several different projects (“Iwokrama” 2013).

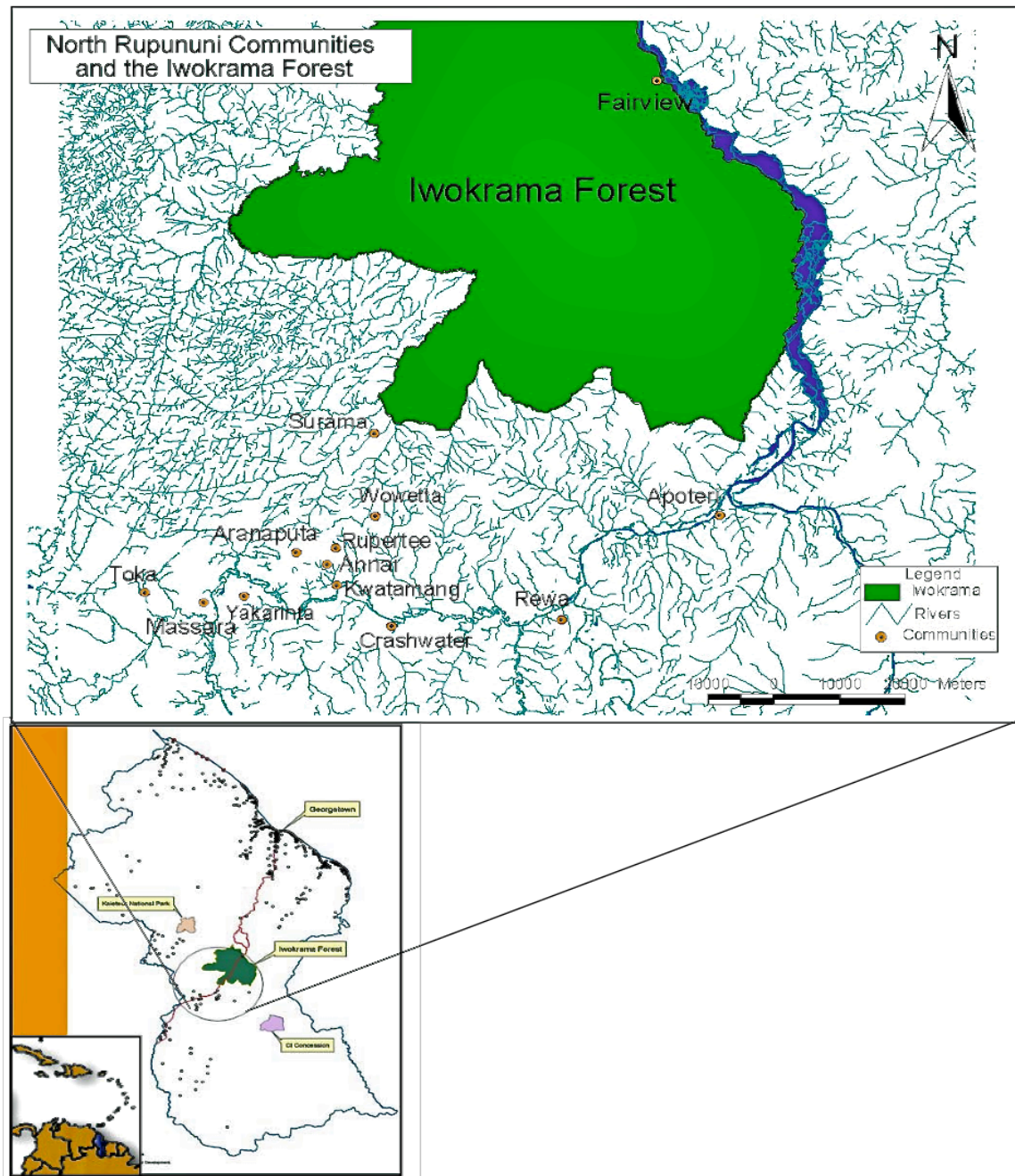


Figure 6.2: Map of North Rupununi District (Fernandes 2004)

There are sixteen indigenous communities within the district with a total population of 6,000. The largest village is Annai with about 550 villagers. The map below in Figure 2 indicates the location of the district. The area consists of rainforest, savannah, and wetland ecosystems that are used traditionally by the indigenous communities. The main traditional economic activities among the communities are small-scale farming, hunting of such as the labba, peccaries, tapir, deer, agouti, capybara and some large wild birds such as the Muscovy duck and the powis, and fishing using nets and traps. Recent development of commercial livelihoods includes brick-making, bee-keeping, handicraft production, aquarium fish trade, soap and ointment production and peanut butter production. Ecotourism is by far the largest income-generating activity currently taking place in the area, with a number of villages engaged in a wide variety of tourism activities including bird-watching, river tours, local cultural tours and mountain hikes.

North Rupununi District Development Board

The NRDDDB is a registered trust and an established NGO that was created in 1996 with the help of the Iwokrama International Center (IIC), a Guyana NGO (“About the NRDDDB” 2012). The creation of the NRDDDB was prompted by the construction of a road to the capital of the district, Annai. With the construction, the leaders of the local villages in the district felt the need to formally connect the communities of the area through a regional representative body (Fernandes 2004). At that time, Iwokrama and Red Thread, an independent facilitator and NGO, had been holding community meetings to discuss conservation issues with the local

people. It was because of these meetings and the technical and advisory support of Iwokrama that the NRDDDB was formed. The NRDDDB was very attractive to those in the communities because it provided many different opportunities. Ousman, Macqueen, and Roberts cite the following reasons that so many were interested in participating in the creation of this organization, since it provided opportunities for:

“sharing of knowledge and experiences, representation through ‘one voice’ rather than in individual community capacities, local determination and implementation of community development projects, targeting of people and forest, creation of employment, identifying priority areas of development, and identifying the rights, roles, benefits, and responsibilities for the people of the North Rupununi” (Ousman, Macqueen, Roberts 2006 63).

Basically, the NRDDDB would give the indigenous people a voice and the power to make and accomplish their own goals.

The creation of the NRDDDB also involved establishing a constitution to outline the way in which the organization was to function. According to the NRDDDB official website, the constitution states that:

“[The] NRDDDB will be a fully autonomous body free of any party political, religious or other institutional affiliation. It will represent the interests of its constituent communities and will facilitate the development of these. It will be established as a non-governmental, not-for-profit, community-based organization which will act as the umbrella for convening the elected representatives of the North Rupununi communities” (“Constitution of the NRDDDB” 1996).

The constitution also highlights three important areas of work: social and economic development, affirmation of indigenous culture and rights, and achieving environmental sustainability and wise conservation of its own forests. It seeks to accomplish these goals through working partnerships with outside organizations, such as Iwokrama and the Guyana government, and through organizing and

empowering the local indigenous communities. In order to prepare the communities, two staff members of IIC's Social Sciences Unit conducted capacity building programs that built leadership skills and trained community development workers and researchers (Ousman, Macqueen, and Roberts 2006). All of this training and work culminated in the signing of the trust deed in November of 2001. Since its establishment as a trust, the NRDDDB's role within the communities has evolved and expanded. Fernandes explains, "The NRDDDB was initially established as a formal link between the communities, government agencies, and Iwokrama, but has since taken responsibility for the planning and coordination of most educational, developmental, cultural and research programs in the North Rupununi" (Fernandes 2004 9). Essentially, the NRDDDB was created to bring together the goals of the communities, the government, and the conservation goals of the Iwokrama forest from the IIC. For this reason, the NRDDDB has become the leading community-based organization in Guyana.

Project Structure

It only makes sense that the structure of the NRDDDB is bottom-up since its overall aim is to "represent the interests of its constituent communities and to facilitate [their] general development" ("About the NRDDDB" 2012). There are 16 member communities of the NRDDDB: Annai Central, Apoteri, Aranaputa, Kwatamang, Massara, Rewa, Rupertee, Toka, Wowetta, Yakarinta, Fairview, Surama and subsequently, Crash Water, Kwaimatta, Katoka and Yupukari (Ousman, Macqueen, Duncan 2006). The chart below in figure 3 illustrates the complex organizational structure of the NRDDDB and its programs. In summary, The board

consists of the Toshao, or community leader, and a second representative of each of the 16 communities as well as one woman representative, one youth representative, and one elder representative. From this group the board elects a chairperson, deputy chairperson, secretary, assistant secretary, treasurer, and assistant treasurer who serve for 3 years with a maximum of two consecutive terms in office. The board hires paid employees such as a CEO, CEO management team, communications team, research, training and education team, administration staff, and finance staff. The NRDDDB also works with numerous national and international partners on various projects, but the Iwokrama International Center is the most involved as the NRDDDB was established under the IIC International Rainforest Program and the NRDDDB reserves the right to nominate an Amerindian to sit on the Iwokrama Board of Trustees.

The most important aspect of this structure is that the members of the community have direct access to the board and their decisions. The board's by-laws require that members of the villages can have their opinion heard either in writing, in person at a meeting, or through their village representative and that each of the villages are informed of the decisions and actions of the NRDDDB (Ousman Macqueen, Duncan 2006). As indicated in Figure 6.3, all of the programs and stakeholders of the NRDDDB are also involved in the organizational structure. This includes a representative from the Karanambu Trust, the North Rupununi District Credit Trust, Bina Hill Research Institute, Radio Paiwomak, Makushi Research Unit, various Women's groups, Executive Fisheries Committee, Wildlife Clubs, Community

Environmental Workers, and the North Rupununi District Agricultural Producers Association (Fernandes 2004).

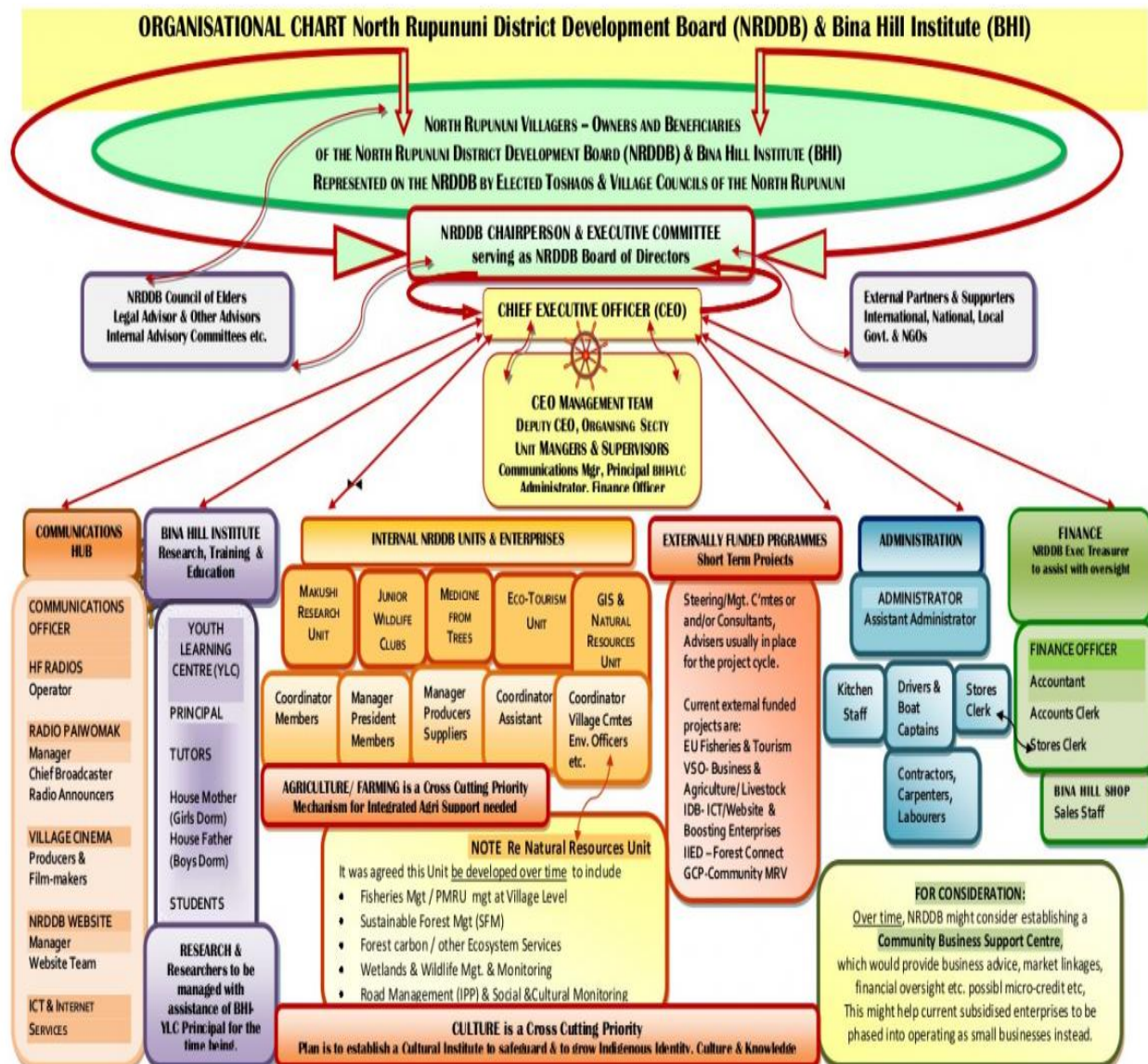


Figure 6.3: Organizational Chart of the NRDDDB ("About the NRDDDB" 2012)

The board has statutory meetings every three months, but may also call meetings depending on urgent matters. Figure 6.4 below shows a more simplified version of the board's organizational structure, with the inclusion of these programs.

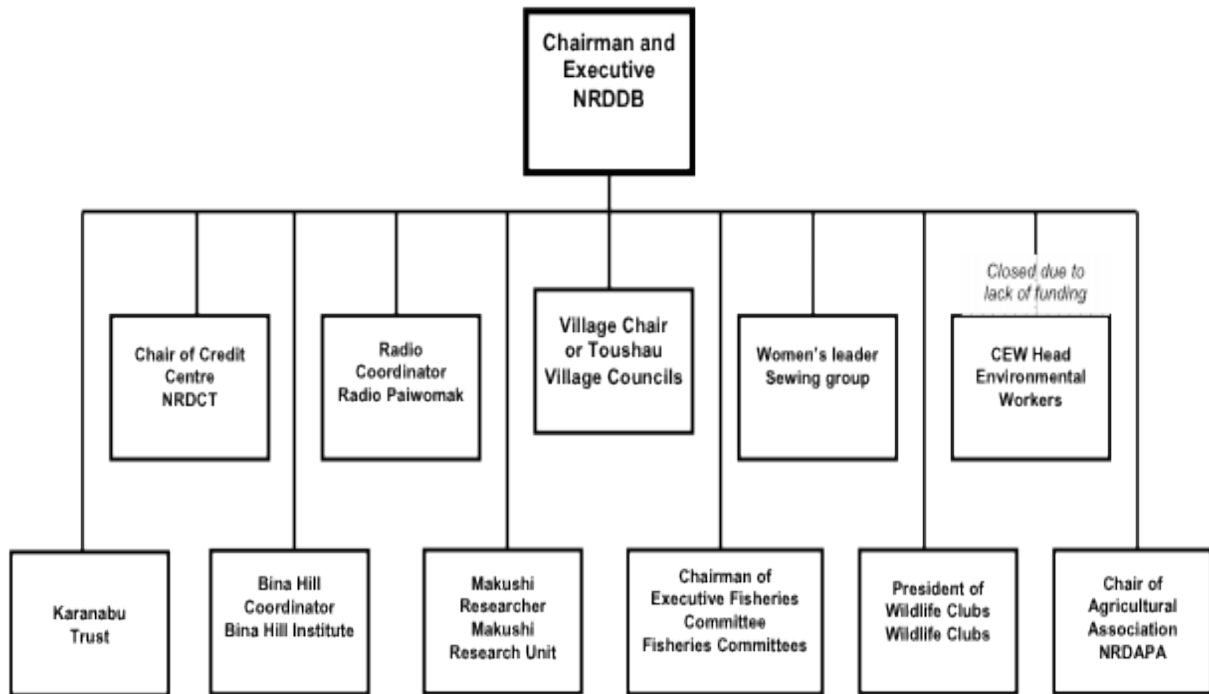


Figure 6.4: Simplifies Organizational Structure (Fernandes 2004)

Core Activities

The NRDDDB's website was established in 2012 and contains the details of the organization and its current programs and projects ("About the NRDDDB" 2012). The website is run by the board. Therefore, it depicts the board's opinions and priorities. On the website, the NRDDDB identifies their most important activities: the Bina Hill Learning Center, the Bina Hill Institute for Research, Training, and Development, the Junior Wildlife Center, and the Makushi Research Center. These different programs work to accomplish the board's goals of social and economic development, cultural preservation, and sustainable conservation.

The first of these core activities identified on the website is the Bina Hill Institute for Research, Training, and Development. The Bina Hill Institute was established in 2001 in conjunction with the establishment of the NRDDDB trust. The

main goal of the institute is to train community members to productive members of the NRDDDB. Training efforts of the institute include: natural resource management, traditional knowledge systems, and building capacity for both occupational and economic development. Specifically, the institute has worked in areas such as agricultural training in veterinary science, plant science, horticulture, and pest control. The institute has also helped community members understand various laws and taught resource mapping for the development of sustainable businesses involving timber, tourism, medicinal plants, aquarium fisheries and honey production. The professional skills development aspect of the institute teaches carpentry, masonry, boat and vehicle operation and mechanics, cooking, sewing, microscopy, and computer use. The institute has also trained guides, rangers, community environmental workers, teachers, and nurses, as well as providing organizational skills development such as household and village financial management, government, and leadership.

The second core activity of the NRDDDB is the Bina Hill Institute's Learning Center, a branch of the Bina Hill Institute for Research, Training, and Development that focuses on preparing the young adults for a career in conservation and/or development. This institution provides a 2-year residential program that focuses on training in natural resource management, forestry, wildlife management, agriculture, tourism, business studies, life skills, traditional skills, basic computer skills, mathematics, and English. The goals of the program are to build the capacity of North Rupununi's young adults by "developing leadership skills, fostering a love for the indigenous culture and the management of the environment" ("About the

NRDDB” 2012). The center has been very successful in preparing the youth to carry on the goals of the NRDDB. At the end of the school year in July of 2011, 16 students graduated from the center. Six of these students are now attending the Guyana School of Agriculture and pursuing courses in Forestry, Fisheries, and the Certificate in Agriculture. Two of these students have been employed by the Iwokrama International Center as tour guide, and three have been employed as interns on the Iwokrama/NRDDB Butterfly Project. Also, one of the students went on to work for the NRDDB as an assistant farm manager at the Bina Hill demonstration farm.

The third core activity, Junior Wildlife Centers (JWC), also focuses on youth education. These centers were established with the help of Iwokrama in each of the 16 communities. The JWCs, or clubs, introduce children as young as 8 years old to natural resource management and organizational and governance issues. The activities of these centers include: Cutting nature trails, presentation of cultural shows (skits) that help raise conservation awareness, village clean-ups, education in proposal & report writing and other communications skills, building club houses, poetry, art, and essay competitions, developing communication systems for the clubs via Radio Paiwomak, learning scientific and local names for animals and plants, wildlife knowledge competitions between villages exchange visits with other communities, frog spotting, bird monitoring, and much more. The JWCs directly involve community children in their conservation and development efforts, using tools that also benefit their education.

The final core activity of the NRDDB, as state on their website, is the Makushi Research Unit. This unit is made up of researchers who are mostly women from

each of the communities. They carry out research on social, economic, and ecological aspects of life in North Rupununi. Projects have also expanded to include the development of the Makushi language in schools with the help of the Ministry of Education. Outside support for the unit came from the Gender Equality Fund of the Canadian International Development Agency, which provided field computers to help with communications and dissemination of information. The Guyana Book Foundation has also helped in publishing several posters and books for the unit, and the MRU has also produced a documentary entitled “Our Language and Culture in the North Rupununi.” The MRU conducts important research in assessing and monitoring the effects of the NRDDDB in community development and conservation, but more importantly it involved a group that can often remain marginalized throughout the ICDP process, women.

Specific Projects

The NRDDDB website is also helpful in that it publishes its current projects. These projects help give insight into the work that the NRDDDB is doing, as well as up to date results. The first of these projects is Community Monitoring, Reporting, and Verification, also known as Community (MRV). The Community MRV was initiated in response to the UN’s REDD Program. The REDD program is a “collaborative initiative on reducing emissions from deforestation and forest degradation in developing countries” (“UN-REDD Programme” 2013). The program was launched in 2008 and involved 49 partner countries, one of which is Guyana. The REDD program provides direct support to the participating countries’ governments to develop their own carbon-reducing strategies, while also providing complementary

data support. In June of 2013, total UN funding to the project exceeded \$172.4 million. With their portion of the funding, Guyana developed the Low Carbon Development Strategy (LCDS) to set a new course for development that keeps its forests intact. The NRDDDB's Community MRV is the first regional effort in Guyana to contribute to the LCDS. It is the NRDDDB's hope that their MRV project will provide a 'best practice' model for other parts of Guyana and other tropical forest regions of the world to replicate. The NRDDDB received funding for their Community MRV project from the Norwegian Agency for Development Cooperation (NORAD).

Another ongoing project of the NRDDDB is entitled "Boosting North Rupununi Community-based Business Enterprises." According to their website, the objective of this project is "to provide institutional strengthening and capacity building to community based organizations to facilitate and support the development of small and medium size enterprise (SME) and the provision of technical, business, administrative, and management services to boost existing microenterprises" ("About the NRDDDB" 2012). The project involves two different components. The first is ICT and website management training. Members of the Community Youth Team, North Rupununi Tourism Program and the Bina Hill Institute will receive training in ICT, Microsoft Office, and the national and international promotion of microenterprises. Those who receive training will then be responsible for managing the website and providing training to other community members over time. The second component of the project is institutional strengthening, training, and capacity building. This component involves the development of four microenterprises that were established as spin-offs from previous community projects:

the North Rupununi Tourism Program, El Dorado Aquarium Traders, Traditional Arts and Crafts Design, and Medicine from Trees: A Women's Small Enterprise. The development efforts include creating a business plan and marketing strategy for each enterprise, improving product development, and business training. Funding for this project came from the Inter-American Development Bank/Multilateral Investment Fund (MIF), which contributed a total of \$52,850, and the NRDDDB, which contributed \$22,550.

With the help of this project, the Tourism Program hired a consultant to train community tour guides with an emphasis on communicating cultural values and the unique landscape. The project also helped the program produce promotional materials.

The El Dorado Aquarium Traders began as the Ornamental Aquarium Fisheries Initiative, a pilot-project funded by the International Union for Conservation of Nature. Its success warranted its continuation as an economic activity after the project ended. The boosting project contributed to the enterprise by strengthening the business elements of the operation and establishing a monitoring plan and conducting impact surveys.

The boosting project contributed to the Traditional Arts and Craft Design enterprise by sending artisans from North Rupununi to Monica Carvalho's atelier in Brazil for short apprenticeships. The project also registered all of the contribution artisans of the various communities and assessed the craft production.

The final enterprise that received aid from the project was the Medicine from Trees enterprise. This enterprise is run by a small unit of women who make creams,

lotions, and soaps from locally cultivated botanicals. The resources of the boosting project will be used to enhance their products and expand market promotion.

The final current project of the NRDDDB is the “Training in Natural Resources Management and the Formulation of Community Development Plans.” The Bina Hill Institute is administering the project with a grant from the NRDDDB and Iwokrama. A total of 4,500 people of the 16 communities will receive benefits from this project. The first component of the project involved training indigenous youths. A total of 97 youth were trained in natural resource management, wildlife management, forestry, agriculture, computer literacy, English, math, leadership, and cultural continuity. Then, the students went out into their communities to work on the sensitization of community members in ecosystem services, global warming, climate change, and the LCDS.

The second component of the project involved training a core group of locals from each community on their rights and responsibilities as Amerindian villagers under the New Amerindian Act of 2006. Training sessions were conducted by David James, the only indigenous lawyer in Guyana. The sessions resulted in the communities putting up notices alerting travelers that they are Amerindian communities. The village councils and community members also learned their rights and are implementing systems to keep track of persons entering and leaving communities and those coming to do research.

The third component of the project is the training in community development plans and land resource mapping. Under this component, each community chose two people to train as Community Development Facilitators

(CDFs). These future CDFs were trained in development planning, proposal writing, financial management, reading and writing of the Makushi language, and GIS- using a GPS and land resource mapping. The CDFs mapped farming, fishing, and hunting areas, materials for building, fish spawning areas, forest resource area, conservation sites, and households and identified several archaeological sites. Every CDF developed a community plan, wrote proposals and then sought approval from the community. Some of the plans and micro-projects that were undertaken as a result include: establishment of a restaurant, improving a tourism guest house, communication to support eco-tourism in the community, a community shop, and enhancing current ecotourism packages in the community.

The final component of the project was its assessment. In assessing the project, the NRDDDB found that its results have received a lot of praise, especially for the micro-projects it created. The assessment also showed that a few women's groups received direct benefits, improving their livelihoods. The assessment has also enabled the NRDDDB to implement a better accounting system for future projects to ensure more efficient management.

All three projects illustrate the commitment the NRDDDB has to balancing development and conservation efforts. The Community MRV works at a local level to contribute to the national goals set by the Guyana Government's LCDS and the international goals set by the UN's REDD Program in conservation practices. The Boosting Community-based Enterprises project provides several local businesses with development tools to ensure their success. Finally, the Training in Natural Resources Management and the Formulation of Community Development Plans

educated the local communities on the rights and responsibilities to their environment. The projects reflect the philosophies of bottom-up hierarchy and community empowerment that make ICDPs successful.

I did not include case studies of the NRDDDB because existing case studies are not recent enough to be relevant. However, I feel that the NRDDDB website provides a sufficient amount of information on its current state to gain an accurate understanding of the organization through extensive reports on recent projects and their outcomes.

Conclusion

The NRDDDB is a pioneering form of ICDPs, in which the project is the organization itself. Created with the help of the IIC, the purpose of the NRDDDB is to organize the local communities surrounding the Iwokrama National Forest and to provide a channel in which the communities can voice and achieve their goals in development while working for the conservation of their unique environments. Although NRDDDB's structure is complex, its core remains true to ICDP principles, consisting of elected representatives of the 16 communities. The board's constitution also ensures that every community member has equal access to the decision-making process either through electing their representatives or voicing their opinions at meetings. NRDDDB also represents the local communities in policy decisions through its seat on the Iwokrama Board of Trustees.

As detailed above, the NRDDDB has created numerous programs and smaller projects in order to promote the harmonious relationship of conservation and development within the North Rupununi District. One of this ICDP's strong points is

its work towards the empowerment of the 16 communities both in conservation and development aspects. Whether through involvement with the Bina Hill Institute or Learning Center, community members can receive education or training in numerous areas such as veterinary or plant science, resource mapping, tourism development, wildlife management, traditional skills, or business and technical skills. Education of youth is also an important aspect of community empowerment within the NRDDDB, as seen in the establishment of Junior Wildlife Centers in each community.

This empowerment is the basis behind every program implemented by the NRDDDB. In these programs, the education and training of the local people is the top priority so that the local people can eventually run the programs themselves. The results of such empowerment within the NRDDDB are expansive. Several locally-owned micro-enterprises have been founded and expanded; Community Development Facilitators are now developing resource management plans for their own communities; and, NRDDDB's Community Monitoring, Reporting, and Verification has become an example for other tropical forest regions. The NRDDDB's conservation and development integration strategies are unique in their form, but still stay true to ICDP philosophies.

Chapter 7

Toledo Institute for Development and Environment

TIDE is another case in which an organization functions as an ICDP. The origins of TIDE can be traced back to the concern of local communities over manatee slaughters and the over harvesting of certain fish stocks in the Port Honduras Marine Basin of Belize. It was because of the effort of these communities and one local man in particular, Will Maheia, that TIDE was established. Coinciding with ICDP principles, TIDE's mission is "to foster community participation in resource management and sustainable use of ecosystems within the Maya Mountain Marine Corridor of southern Belize for the benefit of present and future generations" ("TIDE Belize" 2013). Today, TIDE is an important partner of the government of Belize and is instrumental in the management of three different Belize protected areas.

Belize Background Information

Belize is located in Central America, bordering the Caribbean Sea, with a total area of 22,966 sq. km. and a total population of 334, 297 ("Belize" 2014). Belize is known for its rich Mayan history and extensive biodiversity, with a forest cover of 93% (Fernandes 2005). According to the Biodiversity and Environmental Resource Data System of Belize, the country hosts more than 150 species of mammals, 540

species of birds, 151 species of amphibians and reptiles, and nearly 600 species of freshwater and marine fishes (“Biodiversity and Environment” 2012). Of these species, 2 fish, 1 amphibian, and 1 reptile are endemic (“Living National Treasures” 2013). Belize also houses the world’s second largest barrier reef, the Mesoamerican Barrier Reef System that stretches the full length of the Belize coastline, and 43 distinct ecosystems. Because of its unique ecosystems, tourism is the number one foreign exchange earner in Belize’s small economy, followed by exports in marine products, citrus, cane sugar, bananas, and garments (“Belize” 2014).

The Toledo District is the southernmost district in Belize, and contains five distinct ethnic groups: Mopan and Kekchi Maya, Garifuna, Kriol, East Indian, and Chinese. The Toledo district economy is the poorest in Belize, and relies heavily upon hunting, fishing, and subsistence agriculture using labor-intensive methods as opposed to large-scale mechanization. (UNDP 2012 “TIDE”). Other economic activities within the district do not benefit the local people, but instead benefit national and international companies who the 17 logging concessions granted by the government. These logging concessions cause many conflicts with the local communities who depend on the affected ecosystems (UNDP 2012 “TIDE”). The ecosystems of the Toledo district include pristine rainforests, extensive cave networks, coastal lowland plains, and offshore cays. Figure 7.1 below depicts the location of Belize within Central America and the location of the Toledo District within Belize.

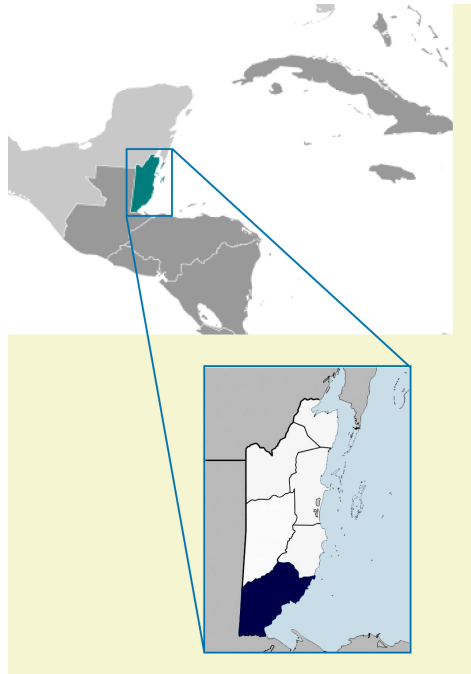


Figure 7.1: Map of Belize and the Toledo District (Equator Initiative 2012)

Also included in the Toledo district is the Port Honduras coastal basin, which lies at the southern tip of Belize. The basin functions as a lagoon with approximately 138 mangrove cays or islands, which provide habitat to and serve as a nursery for fish and marine invertebrates (Foster, Chan, and Dawson 2009). Over 70 species of fish, 40 with commercial value, occupy these habitats (Fernandes 2005). The three largest settlements within the basin are Monkey River, Punta Negra, and Punta Gorda. Punta Gorda is the largest of the three and the capital of the district with a mixed population of over 5,000, while Monkey River and Punta Negra only have a total population of 300, consisting of Kriol and Garifuna residents (Fernandes 2005). Of these populations, only about 200 of the residents are fisherman. Most of the fishing in the area is conducted by commercial fisherman from neighboring countries who typically use gillnets, harvest lobsters and conch off-season, and sometimes harvest manatees and sea turtles illegally (Heyman and Graham 2000).

Their negative impacts on the Port Honduras ecosystems also caused many problems within local communities and influenced the creation of TIDE.

The Formation of TIDE

TIDE was born from the initiation of local communities. The Belize Center for Environmental Studies (BCES), an NGO based out of Belize City, began conducting research in the area after locals noticed an overharvesting of certain fish stocks and expressed their concern in the early 1990s. Their research revealed at least 36 manatee slaughter sites. In response and with the help of The Nature Conservancy (TNC), the BCES began a management plan for the area. Shortly after the beginning stages of the plan, the BCES lost funding and went under in 1996 (Fernandes 2005). The goals of the BCES, however, did not die. Instead, they were carried on through Wil Maheia, a former BCES consultant and local resident. It was Maheia that took on the cause and established TIDE, the first Toledo-based NGO, in 1997 with the help of TNC. In its beginning years, TIDE continued the work of BCES, which included park management planning, education, and community development. After two years, over 40 locals were trained in ecotourism areas such as fly fishing, kayaking, birding and hospitality to promote alternative livelihoods to fishing (“TIDE Belize” 2013).

TIDE’s main goal in its beginning years was to establish the Port Honduras Marine Reserve. TIDE workers relied heavily on the local communities to collect data that would support the need for a reserve in the area. The locals saw the creation of the reserve as a way to stop the influx of foreign fishers, as well as a way to generate income from new tourism. TIDE, in conjunction with the communities of Monkey River, Punta Negra and Punta Gorda, began a letter writing campaign,

signature drives, and used the data they collected to lobby the government (UNDP 2012 “TIDE”; Fernandes 2005; “TIDE Belize” 2013). Finally, in January of 2000, the Belize government formally adopted the Port Honduras Marine Reserve (PHMR), with a total area of 102,302 acres, under a co-management agreement between TIDE and the Fisheries Department of the Government of Belize (Foster, Chan and Dawson 2009). TIDE’s jurisdiction was further expanded in 2001 with the “Debt for Nature Swap” between Belize and the US that gave TIDE 11,000 acres of broad leaf forests.³ These lands were increased later to create a total holding of approximately 21,000 acres known as the TIDE Private Protected Lands. The final and most recent expansion to TIDE’s authority occurred in 2004 with the co-management agreement with the Belize Forest Department of Payne’s Creek National Park (PCNP), covering 37, 680 acres (“TIDE Belize” 2013). Thus, TIDE manages three different protected areas. Two of these areas, the PHMR and PCNP are co-managed with the government of Belize. The third area, TIDE Private Protected Lands (TPPL), is owned and managed solely by TIDE. The total of all three protected areas is 160,470 acres.

TIDE Protected Areas

The Port Honduras Marine Reserve (PHMR) was the first protected area established by TIDE. The PHMR composes 102, 302 acres of the Port Honduras

³ Debt-for-nature swaps “relieve developing countries of debt in exchange for commitments to invest in local conservation initiatives affecting critical ecosystems” (Global Conservation Fund 2009). The Belize debt-for-nature swap of 2001 occurred under the US Tropical Forest Conservation Act (TFCA), which was enacted in 1998. The TFCA allows low to middle income countries with concessional loans from the US government to pay off a portion of their debt using “local currency obligations directed towards domestic tropical forest conservation and protection activities” (Lampman 2003 1).

Basin, which as mentioned earlier, consists of inshore, patch, and fringe reefs, sea grass beds, and mangrove cays (Foster and Williams 2010). Numerous endangered species, such as the West Indian manatee, great hammerhead shark, hawksbill, green, and loggerhead turtles, and the goliath grouper, find shelter within the PHMR. Remarkably, the PHMR coastal mangroves are one of three of the remaining nursery grounds for the goliath grouper left in the world (“TIDE Belize” 2013). The PHMR also supports an important fishery for local traditional users whose livelihoods rely on subsistence fishing.

The reserve is divided into three distinct use zones: preservation, replenishment, and general use (“TIDE Belize” 2013). The preservation zone makes up 1% of the total PHMR and is designated for pre-approved, non-extractive research purposes only. 4% of the PHMR is allocated as the replenishment zone, which permits non-extractive recreational activities, such as charter boating and snorkeling. The remaining 95% of the PHMR is established for general use, where commercial, subsistence and recreational fishing are permitted within the limits of the Managed Access program. The zoning and TIDE’s managed access approach to patrolling the reserve have proven to be very successful in sustaining conservation goals and preventing illegal fishing.

According to the TIDE website, the managed access program is “a fishery management tool that protects stocks by identifying the traditional users of an area and granting only them access to fish commercially within that area” (“TIDE Belize” 2013). The committee that oversees the program is responsible for recognizing that fishers meet the requirements to be considered a traditional user. Traditional users

must have a commercial fishing license, be a resident of Belize, and have a history of using the area and landing their catch in Belize. After the users have been identified, they are recommended to the Fisheries Administrator at the Fisheries Department, who administers the licenses. The committee is composed of representatives of the three communities, Monkey River, Punta Negra, and Punta Gorda, the Rio Grande Fishing Cooperative, the Toledo Tour Guide Association, the Belize Fisheries Department, and TIDE. The committee and PHMR rangers are responsible for ensuring that all commercial fisherman in the area are license-holders and are not using illegal fishing methods, such as gillnets, long-lines, or beach traps. Because, most of the PHMR committee and rangers either belong to a family of former gillnet fishers or are former gillnet fishers themselves, they have a better understanding of where and when to conduct patrols in the reserve (Fernandes 2005).

The second protected area under TIDE jurisdiction is the TIDE Private Protected Lands (TPPL). The total area under TIDE management is 20,488 acres strategically located within the Maya Mountain Marine Corridor (MMMC) (“TIDE Belize” 2013). The MMMC covers approximately one million acres of land and 1,000 square miles of seascape, and extends from the crest of the Maya Mountains in south west Belize to the southern tip of the Belize Barrier Reef System (Foster, Chan, and Dawson 2009). The area of the MMMC that the TPPL composes acts as a biological corridor for species like the jaguar, white-lipped peccary, and Baird’s tapir from one protected area within the Toledo District to another. The ecosystems of the TPPL range from coastal plain broadleaf forests to riparian forests to mangrove forests (“TIDE Belize” 2013). Conservation activities within the TPPL include ranger law

enforcement to fight illegal poaching and logging along with conservation education in local schools and to the general public through house-to-house discussions on hunting laws and environmental benefits of conservation areas.

The Payne's Creek National Park (PCNP), acquired in 2004 and covering 37,680 acres, is the final TIDE protected area. Its wide range of habitats include hyper saline, saline, brackish, and freshwater habitats, mangrove and broadleaf forests, and savannah ("TIDE Belize" 2013). Endangered and vulnerable species such as, the West Indian manatee, goliath grouper, black howler monkey, yellow-headed parrot, and Belize's five species of cat live within the PCNP and add to the necessity of its conservation and management. According to TIDE, the main purpose of the PCNP "is the preservation of biodiversity and the sustainable use of the resources through non-extractive activity" ("TIDE Belize" 2013). PCNP's two main tools in conservation and management are enforcement patrols and fire management. Enforcement patrols address the threat of poaching and illegal fishing. The rangers are qualified as special constables and have undergone special law-enforcement training. Fire management involves using prescribed burns to control the location and sizes of fire and allow for savannah pine and Caribbean pine regeneration. TIDE has predicted that by 2020, both these plant populations will be completely restored. Figure 7.2 below displays TIDE's protected areas. The light gray shading marks PCNP, the medium gray marks the PHMR, and the darkest gray marks the area of TPPL.

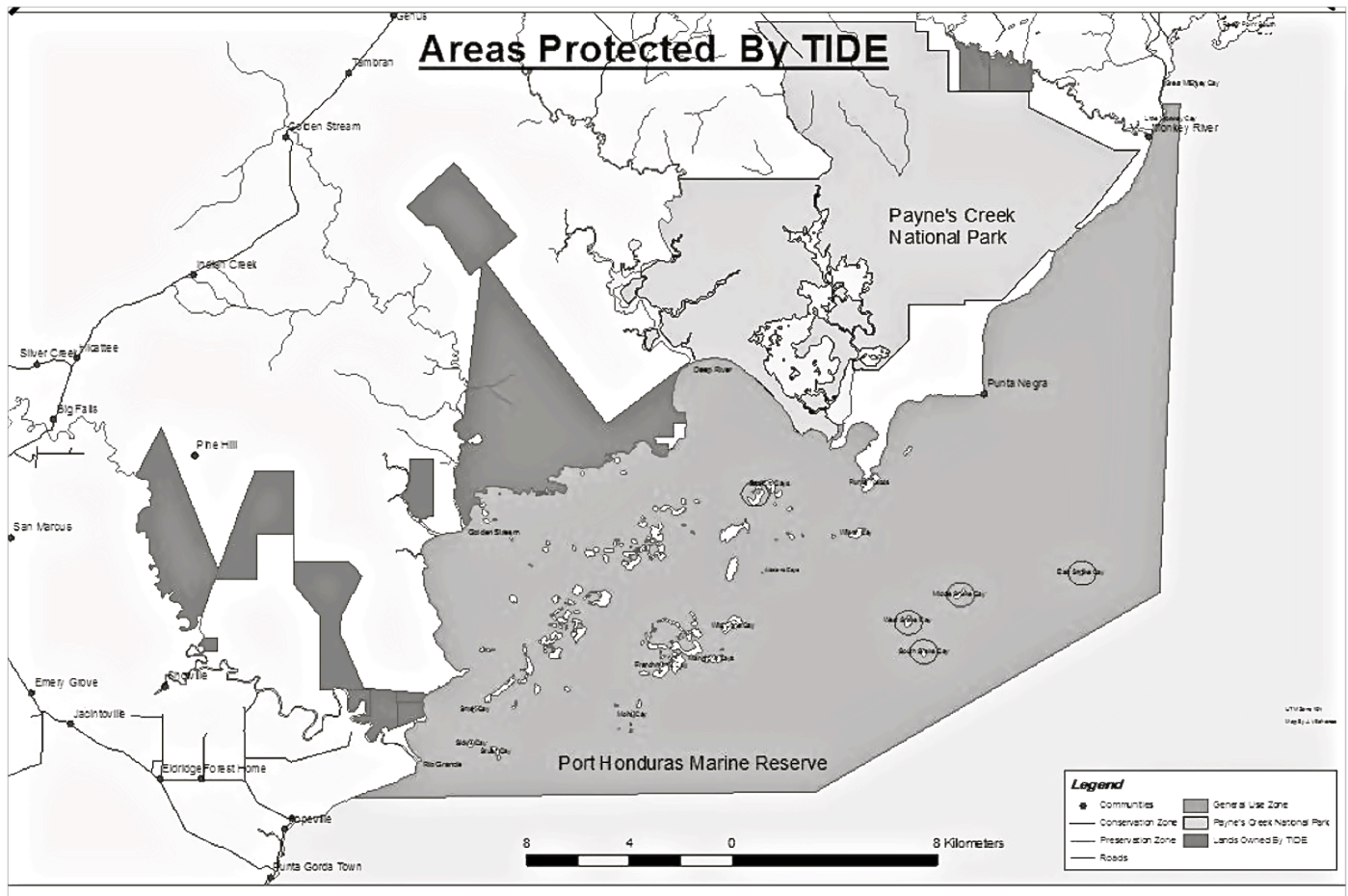


Figure 7.2: TIDE Protected Areas (Foster, Chan, and Dawson 2009)

Tourism is one of the most important aspects of the PCNP. One of the major tourist attractions in the park is fly-fishing at the Punta Y'cacos lagoon. In order to involve locals in this aspect of tourism, TIDE brought in the Orvis Company, a sports fish guide, to train locals on how to be fly-fish guides (Fernandes 2005). Another valuable aspect of the park in terms of history are the four ancient Mayan sites that are now submerged in the lagoon. These sites have added a cultural element to tourism in the park and have attracted a different group of tourists. While PCNP tourism is great for the local communities, it makes the conservation efforts within the park all the more important.

Project Structure

TIDE began as a grass-roots movement led by local volunteers to continue the work that the BCES started. Will Maheia, introduced earlier in the chapter, was a key player in developing the organization into what it is today. TIDE currently employs 35 full-time staff, which includes administrators, rangers, and marine and terrestrial biologists (“TIDE Belize” 2013). TIDE activities are overseen by a Board of Directors, the highest decision making body of the organization. The board is currently made up of a diverse group of stakeholders, all from the local community, including fishers, a farmer, a tour guide operator, a community worker, a teacher, TIDE personnel, and the dean of the local university (UNDP 2012 “TIDE”). These native representatives with diverse livelihoods ensure that the communities’ needs are represented, as well as conservation goals. Directly under the Board of Directors is the Executive Director. Will Maheia held this position from TIDE’s founding in 1997 until he passed it on to Celia Mahung, a former TIDE board member and lecturer in education at the University of Belize, in 2006 (“TIDE Belize” 2013). The executive director oversees all of the managers. The Caribbean Regional Environmental Program (CREP) Project Manager manages the Belizean sub-project of the CREP; the Operations Manager coordinates staff, logistics and office activity; the Tourism Coordinator/Development Director manages TIDE Tours and community development projects; and the Science and Stewardship Director oversees all of TIDE’s research programs and the protected areas (Fernandes 2005).

The advisory committees fall under the Science and Stewardship Director’s responsibility and play a vital role in TIDE’s management plans and policy decisions.

The chart below in Figure 7.3 displays the entire internal organization structure.

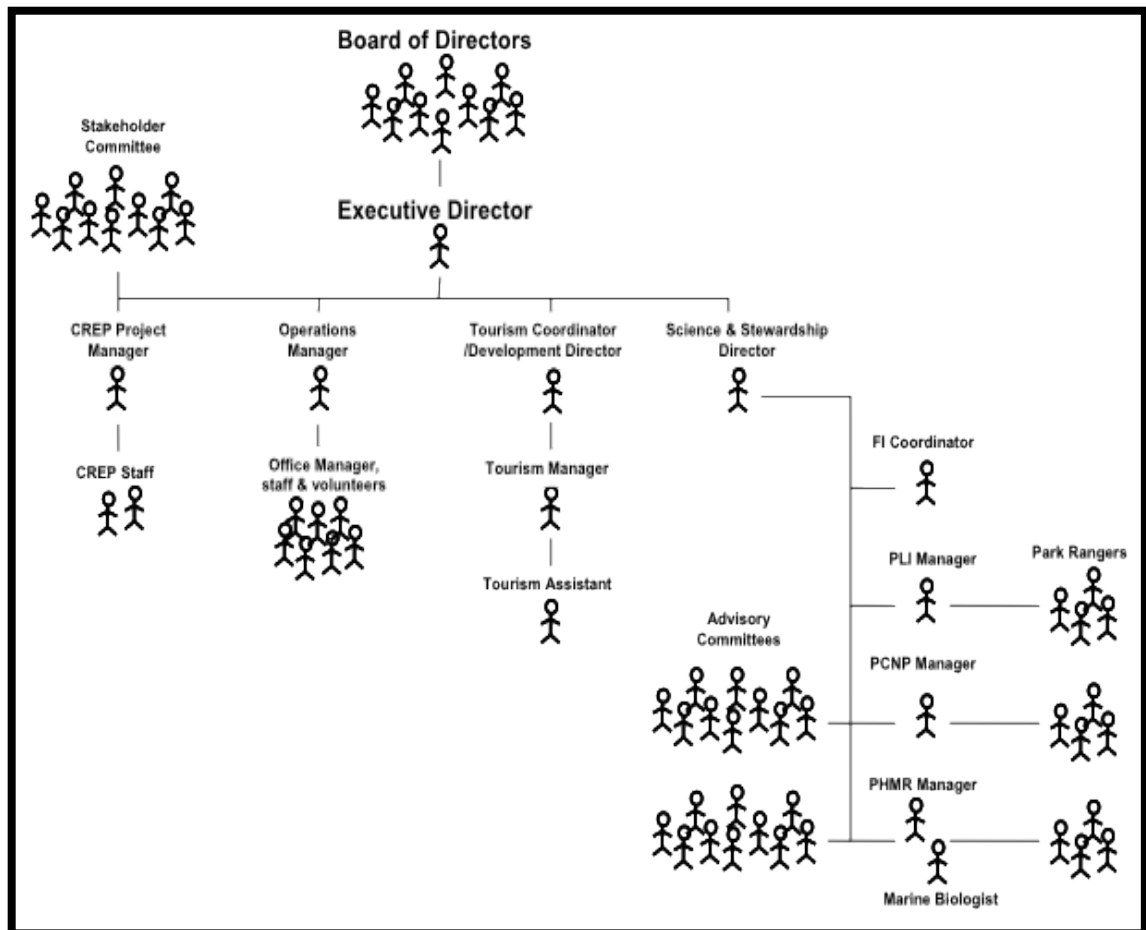


Figure 2.3: Organizational Structure of TIDE (Fernandes 2005)

There is an advisory committee for the PCNP and the PHMR, each made up of residents from their buffer zones (UNDP 2012 “TIDE”). The committee members are responsible for reviewing the current management activities, creating management plans, and making policy recommendations for management plans (Fernandes 2005). The managers for these protected areas implement their recommendations with the help of scientists and park rangers. Also, under this branch of TIDE is the Freshwater Initiative (FI) Coordinator, which oversees the five watersheds within TIDE jurisdiction. A Stakeholders Committee also exists to provide

recommendations to the CREP Project Manager and Staff. This committee includes community members, government officials, civil sector representatives, and TIDE personnel.

Another important branch of TIDE is TIDE Tours. Established in 1999, TIDE Tours is a for-profit subsidiary, created to address the need for development of the local area tourism sector (Fernandes 2005). The main objective of TIDE Tours is “to promote ecotourism in Toledo, provide employment and training opportunities locally and help provide finance for TIDE’s Education and Outreach program” (“TIDE Belize” 2013). The Toledo district is an ideal place to develop an ecotourism program. Its environment is relatively untouched and undeveloped. Up until 2010, there were no paved highways in the district and very few tourists. As the TIDE website states, “If Belize is ‘nature’s best kept secret’ then Toledo is Belize’s best kept secret” (“TIDE Belize” 2013). Attractions within the district include scenic views of the Maya Mountains, traditional villages, caves, waterfalls, Mayan ruins, jungle trails, snorkeling, fly-fishing, and one of the best places in the world to see whale sharks. TIDE Tours acts as an in-bound tour operator services, contracting local tour guides and small local businesses to create tour packages that rotate employment and equally distribute benefits to the communities (Fernandes 2005).

TIDE’s partnerships with outside organizations also play an important role in the structure and function of the organization. Its most notable partnership is with The Nature Conservancy (TNC), which helped establish TIDE and funded many early projects, gave technical and advisory support, and assisted with personnel (Foster, Chan, and Dawson 2009). While the international TNC has mostly phased out of

participation, TNC Local continues to hold a supportive role within TIDE programs. Another important partnership is held between TIDE and the Belize Lodge and Excursions (BLE), a private tourist business, and Ya'axche Conservation Trust, an indigenous conservation and development NGO. Together these organizations co-manage the borders of the three protected areas, sharing research and conducting joint patrols (Fernandes 2005). TIDE has also partnered with eleven other NGO's from Belize, Honduras, and Guatemala to establish the Tri-national Alliance of Non-Governmental Organizations of the Gulf of Honduras (TRIGOH). These organizations have joined together to coordinate on policy issues that affect the natural resources in the Gulf of Honduras and Central America (Fernandes 2005). Finally, the most collaborative and prominent partnership is that of TIDE and the government of Belize. TIDE co-manages the PHMR with the Belize Fisheries Department and co-manages the PCNP with Belize Forest Department. They both contribute park rangers, policy initiatives, and work with local police and coast guard to enforce conservation laws ("TIDE Belize" 2013). Other community-based partners of TIDE include the Southern Alliance for Grassroots Empowerment, Punta Negra Sea Gals Cooperative, Monkey River Tour Guide Association, and the Southern Environmental Association.

The final aspect of TIDE's organizational structure is its funding. The Protected Areas Conservation Trust, a national trust funded by the Belize entrance fee charged per visitors, covers a large portion of TIDE's budget (Fernandes 2005). Other distinct financial contributors to TIDE include: the Programme for Belize, TNC, USAID, the ANINA Foundation, and the Oak Foundation (UNDP 2012 "TIDE").

The TIDE Tours branch of TIDE receives most of its funding from private donors who have visited the area and become dedicated to TIDE's cause. TIDE Tours also receives grants from the UNIDP-GEF Small Grants Program, and it generates some of its own revenue (Fernandes 2005). TIDE's organizational structure and donors reflect its multifaceted aspects and the extensive partnerships that help to make the organization successful.

Conservation and Development Activities

Each year TIDE publishes an annual report, assessing the accomplishments of their goals set for the year. Using this report, as well as the information from their website and a report published by the Equator Initiative, the conservation and development activities can be identified and divided into four different programs. The two conservation programs of TIDE are (1) Resource Management and (2) Research and Monitoring, and the two development programs are (1) Education and Outreach and (2) Community Development.

Their resource management program includes three different methods: Managed Access, Fire Management, and Law Enforcement. These methods are used to help enforce conservation policies within the PHMR, PCNP, and TPPL. In each of these areas, TIDE employs full-time park and marine rangers who live at the ranger station for two-week shifts, ensuring constant patrolling (UNDP 2012 "TIDE"). The Managed Access (MA) program is implemented in the PHMR and conducted by locals trained in law enforcement. These local rangers have better knowledge of the area because they have grown up fishing the waters. They use their positions and patrols as a means of educating local fisherman on their conservation efforts and the

importance of complying with regulations. Because of this managed access approach, the annual report studies found that illegal trans-boundary fishing declined by roughly 50% in 2012, and 83% of PHMR fishers interviewed believed that their catches increased between 2011 and 2012, 33% of whom credit the MA program for this increase (“Rising Tide” 2012). The managed access approach has proven to be a successful form of adaptive management of the PHMR.

The Fire Management (FM) program is implemented within the PCNP because fire is the biggest threat to the biodiversity within the park, especially the endangered yellow-headed parrots. TIDE, the Belize Fire Department, Ya’axche Conservation Trust and two private logging concessionaires, Thomas Gomez & Sons and the Wood Depot, personnel make up the Southern Belize Fire Working Group, which trains local rangers on fire patterns, fighting fires, and prescribed burns in order to efficiently manage forest fires within the park. In 2012, five rangers from the working group, two of which belonged to TIDE, were sent to receive training in fire management at the Everglades National Park in Florida. According to the Annual Report, at this training workshop “they learned how to use fire to restore pineland savannas and brought the techniques back to Belize” (“Rising Tide” 2012). After this training the working group successfully completed prescribed burns within the PCNP and the neighboring Deep River Forest Reserve.

Law enforcement is the third resource management tactic employed in TIDE’s protected areas. The main goal of protected area managers and rangers is to prevent illegal activity such as illegal fishing, poaching, logging and mangrove clearance by removing illegal equipment, such as gillnets, checking fishing and

hunting licenses, informing people of the laws and, when necessary, making arrests (“TIDE Belize” 2013). In 2012, TIDE reported that the marine rangers conducted over 900 patrols in the PHMR, destroyed 20 gillnets, and prosecuted two foreign, illegal fishers (“Rising Tide” 2012). On land, rangers conducted over 450 patrols and noticed an increase in hunting at night in the TPPL. As a result, they are adjusting policies to address this issue (“Rising Tide” 2012). All three of the resource management approaches directly involve local communities either in employment or education, and work to prevent the negative effects of illegal activities.

The second conservation program of TIDE is Research and Monitoring. The research is carried out constantly throughout the year and includes “tracking changes in resource populations, community compositions, and the health of ecosystems” (UNDP 2012 “TIDE” 7). The marine data collection involves water quality monitoring, fisheries assessments, coral reef composition and health, as well as assessments of turtle nesting sites and mangroves. The 2012 Annual Report included the following research results from the PHMR: average conch shell length has remained stable since 2009, in both catches and underwater; lobster abundance was stable between 2009 and 2012; since 2009 average lobster size in the general use zone has increased; the lobster fishery is currently sustainable; and over the last decade there has been a gradual increase in the percentage of live coral cover (“Rising Tide” 2012). The report also identified some trouble areas: the average lip thickness, a measurement of conch maturity, has decreased since 2010; the health of the Mesoamerican Reef dropped from “very good” to “good”; and foreign fishers have been making illegal nighttime incursions in replenishment zones.

The terrestrial data collection takes place within the PNCP and the TPPL. This data collection involves how certain species affect the biodiversity of the protected areas. In order to properly track species populations, TIDE has transected the lowland broadleaf rainforest and the mixed-pine forest ecosystems into four sections. They use the results to update conservation plans based on where species are located (UNDP 2012 “TIDE”). The 2012 Annual Report focused on the monitoring of yellow-headed parrots, big cats, and river water quality (“Rising Tide” 2012). In an effort to conserve the yellow-headed parrot species, TIDE installed ten nest boxes and five artificial cavities just in time for nesting season. They found that 7 of the 10 boxes were used, six eggs were laid, and three chicks successfully fledged. Because of their success, they will install another ten boxes for the next nesting season. The report also noted that they have installed camera traps to study jaguar movements throughout the Southern Biological Corridor, which connects the Maya Mountains with forests in Guatemala. This study will help identify important areas of land that help sustain the jaguar species. Finally, the water monitoring of rivers is helping to improve knowledge of the interconnectivity of freshwater of rivers and saltwater of the sea. Because TIDE is constantly monitoring its biodiversity, it is able to quickly identify and address problem areas, while continuing conservation techniques that are providing results.

The next program, Education and Outreach, plays an extremely important role in connecting the local communities with conservation activities, while developing community knowledge and empowerment. According to the Equator Initiative, “TIDE’s environmental education and outreach program is designed to

increase public awareness of the Maya Mountain Marine Corridor and foster appreciation, ownership and pride among stakeholders” (UNDP 2012 “TIDE” 6). TIDE reaches the communities through supplementing science and social studies curricula in schools and conducting house visits in the buffer communities. The outreach coordinator visits at least 50 households a year and presents presentations to over 1,000 primary school teachers. The Education and Outreach program also includes three specific events and projects, the Freshwater Cup, the Fish Fest Weekend, and Summer Camp that exemplify its dedication to involving and encouraging communities to be a part of conservation efforts.

The TIDE Freshwater Cup is an environmental football league that requires members to organize environmental action within their community. Such projects have led to community clean-ups of rivers and dumpsites, the creation of green sites at schools, and the creation of community recycling programs (“TIDE Belize” 2013). The project has been so successful that it won both the International Olympic Committee with the Sport and Sustainable Development Trophy, which celebrates the integration of sport and sustainable development, and the Kellogg Foundation's Experiences in Social Innovation award.

The Fish Fest Weekend is another innovative method to educate and involve communities. The 2012 fest was centered around the lion fish, an invasive species that has created serious problems in the PHMR. The goal of the festival was to introduce the lionfish as a source of food to communities, hoping to help reduce the species population through consumption (“Rising Tide” 2012). The Fish Fest weekend also included a fishing tournament, an annual Youth Conservation

Competition, and traditional activities such as coconut husking and cast net throwing (UNDP 2012 “TIDE”).

The final educational project within the program is the youth summer camp. The camp has been held for the past six years, with a different theme every year. The camp takes place in several different communities, and over 150 children take part each year (“TIDE Belize” 2013). One unique aspect of the camp is that the children from the PHMR go to visit the inland protected areas, PCNP and TPLL, while the inland children visit the PHMR. They engage in many activities such as bird watching, photography, and studying different ecosystems. The goal of the summer camps is to peak their interests in conservation so that when they grow older they will become community stewards.

The final development aspect involves providing alternative livelihoods for the communities and promoting ecotourism. TIDE alone is the leading employer in the Toledo District, employing 38 in total (UNDP 2012 “TIDE”). They also provided training for locals in areas such as diving, computer and GPS skills, and boat engine maintenance, giving them the tools needed to be successful in alternative livelihoods. Just in 2012, TIDE funded the training of two tour guides, helped 17 fishers benefit from a chicken-rearing project, refurbished the Rio Grande Fisherman Cooperative facility, and constructed two barber shops for barbers who have agreed to provide free services for disadvantaged children (“Rising Tide” 2012). TIDE also includes locals in conservation activities to distribute income directly to community members, such as the reforestation project where 80 locals earned a daily wage of BZD 25 for their contributions (UNDP 2012 “TIDE”).

Apart from the numerous alternative livelihood skills and opportunities provided by TIDE, ecotourism has also had a great impact on the TIDE communities. According to the Equator Initiative, TIDE has trained more than 50 fishers and hunters to serve in the tourism industry whether as guides or as tourism brokers in fly-fishing, kayaking, diving, and other activities. This effort is converting destructive livelihoods that negatively affect biodiversity into lucrative livelihoods that are supportive of conservation efforts. TIDE Tours also supports entrepreneurs through microenterprise training and subcontracting small businesses to provide tourism services. Ecotourism is a very helpful tool in linking conservation and development efforts in a symbiotic relationship.

Case Study

The case study on the TIDE organization conducted by Seixas and Davey in 2008 is entitled “Self-organization in integrated conservation and development initiatives.” This case study is important because it examines the community’s role in the birth, development, and perpetuation of ICDPs. In the study, Seixas and Davey examine Equator Initiative Finalists and short-listed nominees to identify the trigger events and catalytic elements of community-based conservation or integrated conservation and development projects. The Equator Initiative is a branch of the United Nations Development Program and the prize recognizes “efforts in integrating biodiversity conservation and poverty reduction” (Seixas and Davey 2008 1). Seixas and Davey looked at the secondary report of TIDE conducted by Fernandes in 2005 in order to determine its trigger events and catalytic elements.

They concluded that the trigger events for TIDE were the “increased slaughter of manatees and the increased illegal fishing by foreigners” (Seixas and Davey 2008 7). The catalytic elements to start the project were “strong leadership, strong international NGO commitment, community support, and involvement of key people with an existing network of friends” (Seixas and Davey 2008 7). The catalytic elements that maintained the project were “government approval of management plan, a co-management arrangement, increased community awareness and ownership of the projects, capacity building, alternative and/or complementary livelihood options, and successful fundraising” (Seixas and Davey 2008 7). The results reveal the importance of community participation from the beginning of the project and community investment throughout all stages of the project.

Conclusion

Like the NRDDDB, TIDE is an example of an organization functioning as an ICDP. TIDE stands out in that it was initiated by the conservation concerns of locals. It was the locals and a partnering NGO, The Nature Conservancy, that fought for the creation of TIDE’s first protected area, PHMR, and later PCNP and TPPL. Typically, ICDPs provide solutions to reconcile the differing goals of conservation and development. However, in the case of TIDE, the original desire of many locals, with the exception of some fisherman, was to first establish the protected area and then develop sustainable livelihood activities around the conservation efforts.

TIDE aligns sustainable livelihood activities with conservation efforts predominately through ecotourism and resource management programs. The main

way in which TIDE accomplished this was by training former local fisherman of the PHMR area to be either patrolman or tour operators. By doing so, the fishermen were able to apply their knowledge of the area to conservation efforts or sustainable development activities. Furthermore, TIDE Tours, the tourism subsidiary of TIDE, contributes to conservation and management by generating revenue for TIDE's protected areas, and it contributes to development by contracting local tour guides and businesses.

Like the other ICDP examples, TIDE's success can be partly attributed to strong partnerships and community empowerment. TIDE works very closely with the government of Belize to co-manage two of its protected areas, PHMR and PCNP. TIDE also collaborates with other local and regional NGOs and private businesses on other conservation and management projects. In terms of community empowerment, TIDE provides extensive education and training programs for locals of all ages, encouraging their participation in all aspects of TIDE. TIDE's successful accomplishment of ICDP goals has earned world-wide recognition and made it a noteworthy addition to this study.

Chapter 8

Discussion

After reviewing the ACAP, SLAMU, Casa Matsiguenka, NRDDDB, and TIDE projects, it is evident that ICDPs are a very encompassing approach to conservation in that they consider another factor of conservation: human interaction. ICDPs can also be considered a more encompassing approach to development because they plan for sustainability and the preservation of culture. My review of these five studies in detail has made available all aspects of the projects for analysis. While the projects may differ in size, NGO involvement, management approaches, and location, it becomes evident through their analyses that they all have some aspects in common that have made them successful. These aspects are not necessarily tangible such as the characteristic recommendations of existing studies on ICDPs (Hughes and Flintan 2001; Alpert 1996; Kiss 1990; Oates 1995; Hannah 1992; Kremen et. al. 1994). Instead, the common factors of the five ICDPs I have presented are underlying philosophies that extend beyond the tangible characteristics such as local participation, knowledge of policies, etc. These philosophies, along with the tangible characteristics, determine the ICDPs success, and they are community empowerment and bottom-up hierarchy. Furthermore, after studying the five

exceptional examples of ICDPs another key characteristic of the success of ICDPs is evident, and that is the involvement of ecotourism within the development portion of ICDPs. Ecotourism principles coincide with ICDPs' core principles and contribute to the connection between ICDPs and their vital philosophies. In what follows, I will explain the importance of community empowerment, bottom-up hierarchy, and ecotourism within ICDPs, determined by the study of the five ICDPs, and how each is essential to their success.

Community Empowerment

The World Health Organization (WHO) defines community empowerment as “the process of enabling communities to increase control over their lives,” communities being any group of people who share common interests, concerns, or identities (“First Track” 2014). In the context of this study, communities exist on the local level. Community empowerment involves more than participation or engagement. Instead, it requires community ownership and action explicitly focused upon social and political change. Thus, by this definition, requirements of ICDPs cited in existing literature do not extend community participation to the level of community empowerment. Mayo and Craig (1995) also contribute to the definition of community empowerment by explaining its functionalist view that considers power in a society as a variable sum, meaning that empowerment can be achieved within the existing social order. So, when a group of lesser power gains power, they are not taking it away from the already powerful group. Such is the case in ICDPs because in gaining power, the local communities are able to contribute more to conservation efforts. Finally, Scheyvens adds to our understanding by categorizing

four different types of community empowerment: political, social, economic, and psychological. In her article, Scheyvens is referring to community empowerment through ecotourism, but these categories can also be applied to community empowerment through ICDPs. These four aspects of community empowerment can be identified within each of the five ICDPs examined in this study and connected to their success.

The first categorization of community empowerment is political, which is reflected in the organizational structure of the ICDPs. Scheyvens explains the political aspect of community empowerment as:

“the community’s political structure, which fairly represents the needs and interests of all community groups, provides a forum through which people can raise questions...and have their concerns dealt with...Agencies... seek out the opinions of community groups (including special interest groups of women, youths and other socially disadvantaged groups) and provide opportunities for them to be represented on decision-making bodies” (1999 247).

Each ICDP implements this form of community empowerment in their organizational structure by granting positions of power and influence to the members of local communities. For instance, in the Casa Matsigenka project the directors or *gerentes* of the project are locals that are elected by the two communities. Because the Casa Matsigenka project is a small-scale ICDP, these *gerentes* are directly involved in the decision making of the Manu National Park (PNM) and participating NGOs. Political empowerment is also recognizable in the NRDDB. Each of the 16 communities elects two members to sit on the Board, and the board reserves three seats to ensure one woman representative, one youth representative, and one elder representative are present to represent minority

groups, a quality mentioned by Scheyvns. Within the ACAP's structure, the Conservation Area Management Units (CAMCs) hold the most clout and are made up of locals. Like the other two projects, members of the CAMC are elected by the village assemblies, and five membership positions are held for minority representation of women, occupational castes, etc. The SLAMU's most powerful representative body is the Village Action Group (VAG) which is divided by village and receives 80% of the generated funds to use as they see fit. Finally, while not as strong in this aspect of community empowerment as the other four projects, TIDE still involves locals in its power structure by including representatives from each sector of community life (fishers, farmers, tour operators, community workers, and teachers) in the Board of Directors. Each of these projects ensures that the local communities play the most decisive role in decision-making and implementation of the project, but they do not do so without preparation.

More important to political community empowerment than merely giving locals higher positions is giving locals the training and leadership skills needed to be more effective in these positions. In each ICDP case, local communities received training in some form of leadership, management, or administrative skills. For instance, the NRDDDB established several different forms of training facilities available to members of all 16 communities: the Bina Hill Institute, the Bina Hill Learning Center, and the Makushi Research Unit. Furthermore, they implemented specific training workshops in the Amerindian Act, a piece of legislation that gives the indigenous people of Guyana the right to communal land, intellectual property, environmental protection, and self-governance ("Amerindian Act" 2006). Another

great example of political capacity building within ICDPs is evident in the ACAP's Capacity Building Program. This program included training on infrastructure development, appreciative inquiry, report writing, and computer programs; all of these are tools necessary to make sound policy decisions within the project. Thus, ICDPs not only give local communities leadership positions, but they also give local communities the skills need to be self-sufficient and to eventually run the project without outside technical assistance.

The second aspect of community empowerment builds off of the values of political empowerment. Scheyvens explains social community empowerment as when "community cohesion is improved as individuals and families work together... Some funds raised are used for community development purposes, e.g. to build schools or improve roads" (1999 247). In the context of ICDPs, community empowerment emerges through the joint cooperation of all members of the community, which may include community wide projects, certain educational programs, or the improvement of infrastructure. All five ICDPs of this study contain aspects of social empowerment. Within the SLAMU, VAGs committed many of their funds to infrastructure, health and education benefits. Some examples just in the year 2012 include the construction of 26 medium cost houses, five airfields to facilitate tourism, and new roads within the SLNP. The SLAMU also constructed a health center staffed with one doctor and a full clinical staff which has sponsored events throughout the area including World AIDS Day, Child Health Day, and HIV/AIDS health awareness training. Income from the project has also supported 1,500 secondary school students and 70 college students. TIDE has also socially

empowered its communities through programs such as the Freshwater Cup and Fish Fest Weekend that bring the community members together and provide a social element to conservation education.

Perhaps the most important social aspect of community empowerment within ICDPs is the incorporation of communities in conservation efforts, which occurs with both youth populations and adult populations in each project. Youth are incorporated through education programs such as the Junior Wildlife Centers of the NRDDDB and the youth summer camps of TIDE, that give children a chance to participate in research and monitoring within protected areas. Adult members of ICDP communities also make significant contributions to conservation efforts. The ACAP Natural Resource Conservation program trained 70 forest guards and 60 park administration personnel for the conservation area. The SLAMU conducted conservation awareness programs in every VDC and trained 36 community-based hunters and 24 members from different CRBs in animal control. The project also trains community members to act as Village and Community Scouts that monitor resident and non-resident hunting. TIDE trained many local fishers to act as law enforcement within the PHMR, applying their knowledge of the area to prevent illegal resource extraction. Each of these examples of increasing community knowledge of conservation and its importance both create a stronger social unit and contribute a very important part of psychological empowerment that will be discussed later in this chapter.

The third form of community empowerment is the most obvious form: economic community empowerment. In its application to ICDPs, Scheyven's

definition of the economic empowerment of communities means that “cash earned [from development activities] is shared between many households in the community. There are visible signs of improvements from the cash that is earned (e.g. improved water systems, houses made of more permanent materials)” (1999 247). The visible signs of economic improvement within the communities were discussed under the social aspect of community empowerment (refer to previous page). However, yet to be discussed is the economic empowerment that comes from the alternative livelihood opportunities provided by ICDPs. These alternative livelihoods could arise from new positions within conservation efforts such as park rangers, or from new enterprises that arise such as ecotourism enterprises. A notable example of economic empowerment is found in the Casa Matsiguenka project. Members of the Tayakome and Yomibato communities are employed by the ecolodge through a rotating system that ensures equal employment. Community members can also receive income from the ecolodge as tour guides or through handicraft entrepreneurship. Since the construction of the lodge, average annual household income in the Tayakome community increased from \$5 to \$152 and average annual household income in the Yomibato community increased from \$1 to \$107 (Ohl 2005). This increase in income has allowed the two communities to provide infrastructure, health, and education needs for themselves. TIDE was reported as the leading employer in the Toledo District (UNDP 2012 “TIDE”), and trained many others to participate in other livelihood activities such as tourist guides in fly-fishing, kayaking, diving, and other activities. Within the SLAMU project, each community household received direct cash distributions called *tyolelas*

from a portion of the LGMA and SLNP entrance fee revenues. Helping local communities with the means to provide for themselves has a great effect on community empowerment. Another emerging pattern associated with alternative livelihoods among the studied ICDPs is the dominating presence of ecotourism and its effectiveness. This topic will be discussed in detail later in the chapter.

The final aspect of community empowerment that is generated from the other three-political, social, and economic- is psychological empowerment. This form of empowerment plays the most important role in the success of the ICDP because it is the local attitudes towards ICDP goals that ensure their completion and perpetuation. In the realm of psychological community empowerment within ICDPs:

“self-esteem of many community members is enhanced because of outside recognition of the uniqueness and value of their culture, their natural resources and their traditional knowledge. Increasing confidence of community members leads them to seek out further education and training opportunities. Access to employment and cash leads to an increase in status for traditionally low-status sectors of society e.g. women, youths” (Scheyvens 1999 247).

The key words of this definition are ‘self-esteem’ and ‘confidence,’ which are gained from the education, training, and leadership experience provided by ICDPs. While community empowerment is implemented on the local level in ICDPs, it is connected to the global level through the involvement of governments, NGOs, and ecotourists. The ICDPs bring an outside lens, an international perspective of the importance of the local communities both environmentally and culturally, and they give the local communities an opportunity to see themselves through this lens. In his study on globalization and indigenous communities, Bhawuk finds that, “Globalization is not about homogeneity but about diversity, and humankind cannot survive without the

necessary requisite variety, which the insights from the indigenous cultural knowledge can provide” (2008 316). From this point of view, community empowerment influences ICDP success because it links ‘the global’ and ‘the local’; it makes environmental and cultural conservation in rural communities of developing countries necessary to the globalization process. The influence of ICDPs on ‘self-esteem’ and ‘confidence’ come from its political, social, and economic elements of empowerment. The presence of community empowerment in ICDPs lead to its success by laying the foundation for projects to eventually exist on their own, without outside help from NGOs because once development and institutional issues are dealt with, conservation becomes an inherent top-priority among local communities.

Bottom-Up Hierarchy

The second common philosophy identified among the five successful ICDPs is their bottom-up hierarchy. The characteristics of a bottom-up hierarchy build off of the principles of community empowerment. The premise behind the success of a bottom-up hierarchy is that grass-roots initiatives are most important to those who will be responsible for carrying out the policies- the local people. This premise is especially relevant to ICDPs because they rely on local communities to ensure the success of conservation. When policy decisions are made at the bottom, communities are invested in those decisions. This hierarchy found present in the five studied ICDPs contributes to the projects’ success by promoting the four principles of community empowerment.

Politically, a bottom-up hierarchy establishes the governing system of the project to begin with the most local representative body, which is seen in each project (gerentes in Casa Matsigenka, Board of Trustees in NRDDDB, CAMCs in ACAP, VAGs in SLAMU, and Board of Directors in TIDE). As discussed in the community empowerment section, this structuring of projects allows the local people to acquire the skills and knowledge to run the project themselves, a part of the goal of project sustainability. However, the importance of bottom-up hierarchy to the success of ICDPs extends farther than the project structure. The government structure and national resource management infrastructure also greatly influence the success of an ICDP. As displayed in the example projects, natural resource management must begin with the targeted local communities and fulfill a bottom-up hierarchy structure. Because of this, ICDPs must consider the political and legal framework under which the project is to be implemented. For example, in Nepal the government established the National Trust for Nature Conservation (NTNC) which created a network that begins at the smallest level with local committees and extends outward. In the case of Casa Matsigenka, indigenous rights groups COMARU and CEDIA successfully organized the local indigenous communities to lobby for their right to land concessions. With these concessions, the indigenous communities were able to build their ecolodge and actively participate in the resource management of the Manu National Park by holding seats on INRENA's Board. Thus, not only must the local communities be politically empowered within the project itself, but the national resource management must also empower the local communities through a bottom-up hierarchy.

The presence of bottom-up hierarchy and its contributions to ICDP success can also be seen in social empowerment. From this perspective, it is local leadership that is making policy decisions for the community with regards to infrastructure, healthcare, and education. A bottom-up hierarchy in ICDPs allows communities to prioritize needs based on their opinions and provide for themselves. Instead of having NGOs donate through volunteer work or governments implement inefficient programs, ICDPs facilitate local ownership of community improvement and social empowerment (see page 120 for examples). Through this bottom-up hierarchy and social empowerment, local communities begin to prioritize conservation as a social necessity. This prioritization is evident in the overwhelming community participation in conservation seen in the examined projects. The local communities' ability to fulfill basic needs such as education, healthcare, and infrastructure through the bottom-up hierarchy leads to the valuing of biodiversity for more than its economic worth. Thus, bottom-up hierarchy promotes the intrinsic value of biodiversity among communities, demonstrating the success of ICDPs.

Bottom-up hierarchy is also important to the economic empowerment of local communities within ICDPs. Just as the political structure of ICDPs, the economic structure must also begin at the grassroots level. In a sense, economic empowerment is an extension of political and social empowerment in that decision making involves the control of money. For instance, in the SLAMU 80% of the funds generated from the projects are fed directly to the Village Action Groups to use for policy implementation and community improvement. However, another sense of the bottom-up hierarchy as economic empowerment can be seen through the

development aspect of ICDPs. A part of the definition of ICDPs is the “economic development in surrounding communities” (Brandon and Wells 1993). Thus, distribution of economic benefits should begin at the local level. This distribution can be direct, as it is in the SLAMU with *tyolelas* direct household income, or it can be indirect through the creation of alternative livelihoods. Each of the five projects promotes alternative livelihoods either through locally-owned enterprises, careers in conservation, or involvement in ecotourism industry (see page 122). It is important to note that these livelihoods are distinguishable by where they lie within the bottom-up hierarchy. In the example ICDPs, these livelihoods empower locals to either own their own business, hold high positions within resource management, or run tour operations. The economic opportunities facilitated through ICDPs are eventually operated completely by locals, emphasizing grassroots initiatives.

Finally, just as within community empowerment, the bottom-up hierarchy of ICDPs creates a psychological change among local communities. The political, social, and economic power generated from this hierarchy greatly influences a positive local mentality towards conservation. Thus, the bottom-up hierarchy system is vital to the success of ICDPs.

Ecotourism

The final result of the comparison of the five successful ICDPs is the importance of ecotourism as an ICDP development activity. Ecotourism is an ideal link between conservation and development because it places such a great emphasis on conservation and because ecotourism alone helps local communities to value biodiversity apart from its extrinsic value as a natural resource. Furthermore, often

time development can lead to the loss of indigenous traditions and culture. However, ecotourism works to prevent this cultural degradation by involving cultural preservation in its activities. Ecotourism and ICDPs share similar goals and structures, making it an excellent fit into the development aspect of ICDPs. Also, from examining how ecotourism is applied within the five ICDPs, it is evident that ecotourism is a development activity that incorporates conservation incentives because it is centered upon the conservation of unique biodiversity. Finally, ecotourism is a recommended development activity for ICDPs because it contributes to community empowerment, in both the economic and psychological sense.

A comparison of the definitions of ecotourism and ICDPs illustrates their compatibility. Ecotourism is defined as “responsible travel to natural areas that conserves the environment and sustains the well-being of local people” (Taylor et. al. 2003), and ICDP as a project that “links biodiversity conservation in protected areas with social and economic development in surrounding communities” (Brandon and Wells 1993).⁴ Both ecotourism and ICDPs involve the conservation of unique ‘natural’ or ‘protected’ areas. Furthermore, both concepts require a deeper involvement of outsiders or ecotourists. Ecotourism necessitates the conservation education of the ecotourist, as well as a genuine cultural experience, which promotes the ICDP goal of preserving the cultural integrity of local communities. Additionally, each concept incorporates levels of sustainability- ecotourism is non-invasive and ICDPs favor low human impacts. Finally, both ecotourism and ICDPs are community-based. They each require active involvement of local communities

⁴ See Appendix 2 for complete explanation of ecotourism and justification for this definition.

and promote their sense of ownership of the conservation of the area. Their similarities in theory are reinforced by their similarities in application.

The compatibility of ecotourism with ICDPs is apparent in its role in the five discussed projects. Ecotourism functions as the activity that directly links conservation and development or economic benefits. In this respect, it serves as a form of economic community empowerment. One way in which ecotourism emphasizes the importance of conservation for local communities is the financial contribution of parks and their entrance fees. For instance, the SLAMU is mainly funded by the park entrance fees to the LGMA and SLNP. This revenue goes directly to the Village Action Groups, which fund community benefits, and directly to households through the tyolela (see SLAMU chapter). Another example of direct financial link of conservation and development is seen in the ACAP, where 100% of the park entrance fees make up the project budget and fund the various conservation and development programs. Another way ecotourism links conservation and development within ICDPs is through its promotion of alternative livelihoods that are compatible with conservation efforts. These livelihoods include park rangers, tour operators, and park guides. Other alternative livelihoods created by ecotourism are not directly linked to conservation, but do promote sustainability and economic community empowerment. For example, Casa Matsiguenka tourism provides 95% of Matsiguenka household income. Also, ecotourism supported many locally-owned businesses within the NRDDDB's micro-enterprise project.

Finally, ecotourism contributes to ICDPs through psychological empowerment. By seeing the desire of foreigners to learn about their environment

and culture, ecotourism gives local communities a sense of empowerment. In ecotourism locals act as teachers and educators, and they see an intrinsic value in their culture as well as their biodiversity. In training to be guides or to act as tour operators, locals learn about the significance of their environment and their culture. One example of this form of ecotourism empowerment is the Casa Matsigenka project's ethno-ecology workshops for international students that give locals the chance to educate others, strengthening their self-confidence. The NRDDDB provides workshops on ecotourism for all local communities to highlight both the positive and negative effects of tourism so that locals can decide for themselves the best way to implement ecotourism within their communities. Ecotourism's philosophical compatibility with ICDPs, in the fostering of community empowerment and bottom-up hierarchy, makes ecotourism the best link between conservation and development within ICDPs.

Chapter 9

Conclusion

By looking at five exemplary integrated conservation and development projects, the importance of community empowerment, bottom-up hierarchy, and ecotourism are evident. Their presence greatly influences the success of ICDPs and the accomplishment of ICDP goals. While existing literature outlines many requirements for ICDPs, these three are not explicitly present, even though they are essential in understanding the possible effect of ICDPs on conservation efforts. It appears that these three principle characteristics are what make ICDPs an extremely effective conservation method.

Many developing countries today face a dilemma between the need for development and the necessity of conserving significant biodiversity. The two seem to work against each other and cause many conflicts between protected areas and bordering communities. In most cases, the main economic activity of surrounding communities involves resource extraction that makes resource management difficult for park personnel, or local communities are excluded from any form of resource management within protected area boundaries, negatively affecting

livelihoods. ICDPs provide a solution to these problems by establishing a link between conservation and development.

The goals of ICDPs are considered lofty by many, with merit in theory but unable to be applied in real-world situations (Kramer, van Shaik, and Johnson 1997; West and Brechin 1991; Brandon and Wells 1992). These conclusions are based off of projects that were either implemented incorrectly or were not given enough time to be evaluated effectively. Other studies have found ICDPs to be a credible conservation method. These studies focus on particular guidelines that projects should follow in order to be successful. However, these studies are mostly based off of one specific area or region, and therefore are narrowly focused. Little has been studied on the fundamental philosophies and principles of ICDPs. Thus, by examining in detail five, long-standing, successful ICDPs spread across four different continents the three connecting characteristics of ICDPs were made evident. Two of these characteristics are philosophical undercurrents, community empowerment and bottom-up hierarchy and the third characteristic is the importance of ecotourism as a development activity.

The data collected from the study of the five successful ICDPs reveals the importance of these three principles in the process of planning and implementing a project. Community empowerment should be the underlying, driving force behind all political, social, and economic factors of ICDPs. If present, community empowerment enables local communities to make sound policy decisions, to be stewards of conservation, to provide for themselves, and to improve their way of life. Ultimately, community empowerment within ICDPs results in a psychological

empowerment within communities that promotes ownership of the project in which conservation becomes a top-priority of local communities.

Bottom-up hierarchy further reinforces the characteristics of community empowerment by establishing power at the lowest, local level. In the examined projects, the most important decisions were made by the local communities and then implemented using the tools given by the involved NGOs. Because they are making the decisions and hold the responsibility, the local people are invested in the project for more than its economic benefits. ICDPs are dependent upon local commitment to conservation. Thus, a bottom-up hierarchy ensures that the local people are fully involved and empowered in every aspect of the project.

The final principle necessary to ICDP success that was illustrated in all five projects is ecotourism. Within an integrated conservation and development framework, ecotourism functions as the direct link between conservation and development, making the two symbiotic. It emphasizes the necessity of conservation and protected areas through the financial gains received from ecotourists' attraction to these places. The tourist and park fees generated from ecotourism flow directly into the project structure and fund community benefits, and the increased visitors promote alternative livelihoods that are compatible with ecotourism efforts. The effects of ecotourism reach even further into project goals by promoting the intrinsic value of culture and environment and emphasizing their global significance among the local communities.

The three vital principles made evident in this thesis play an important role in the understanding of ICDPs as a whole. They add to the existing research by

providing a greater context for the framework of the ICDP and how it should be implemented. In order for an ICDP to be successful, community empowerment, bottom-up hierarchy, and ecotourism must be present. It is because of these principles and their effective involvement of local people that ICDPs can be considered an extremely valuable conservation method. In regards to policy implication, the application of these three principles in future ICDPs can greatly influence their rate of success. As seen in the five exemplary examples detailed previously, if community empowerment, bottom-up hierarchy, and ecotourism are implemented sufficiently within the project, conservation will become a main goal of local communities, and both the local communities and conservation efforts will benefit from each other.

The study has offered an in-depth look into five successful ICDPs based on existing case studies and internal reports and publications. A gap in the existing research on these projects lies between the case studies and the reports used. Most of the case studies were conducted between five and ten years of the projects' beginnings. Therefore, many of the results were negative because they did not allow enough time for the project to mature. For example, most of the case studies in Zambia were conducted before Phase 2 of the SLAMU. In an effort to bridge the gap between the late studies, I contacted some of the project directors and staff and used annual reports from the last two years. Despite these limitations, based upon the study of these excellent cases and extracting their key characteristics, it seems fair to say with high confidence that the three presented principles are essential to ICDPs.

The Annapurna Conservation Area Project, South Luangwa Area Management Unit, Casa Matsiguenka project, North Rupununi District Development Board, and Toledo Institute for Development and Environment provide enormous insight into the characteristics of successful integrated conservation and development projects. The data collected from these examples suggests three fundamental principles of ICDPs: community empowerment, bottom-up hierarchy, and ecotourism. The implementation of these principles will ensure project success and effective conservation.

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APPENDICES

Appendix 1: Ecotourism Defined

Origins of Ecotourism

The tourism industry began to change from its original consumptive form with the emergence of an environmentally- conscious society starting in the 1970s. This change is evident when examining its history through Jafari's "platform" lens (Weaver 2001). Under this lens, tourism evolves through four different platforms: Advocacy, Cautionary, Adaptancy, and Knowledge-Based.

The tourism industry took off during the economic boom of the 50s and 60s. For the first time, the majority of households in more developed countries had disposable income and an affordable means of travel. The British were the first major travelers and consumers of the package holiday. In 1950, over one million Brits traveled abroad as a part of the post-war holiday boom. (Baxter 2013). Furthermore, new legislation such as the amendment to the Convention on International Civil Aviation provided for a large increase in the use of charter plans (Baxter 2013). The tourism industry took off. During this time, tourism was seen as "the ideal, smokeless industry... The more tourism the better" (Weaver 2001 107).

However, an increased academic focus on human effects on the environment in the 1970s led to criticisms of the tourism industry. This period is dominated by the "cautionary platform" view of tourism. At this time, the regional growth in tourism of the Far East, Oceania, and Latin America was far greater than the growth rate in the previous larger tourism markets of western and eastern Europe and north-central America (Lea 1988). Critics of tourism were worried that it would

negatively affect the environmental, economic, and socio-cultural integrity of these vulnerable developing countries (Weaver 2001). These concerns were the seeds for the development of ecotourism. As Blamey phrases it, “Ecotourism developed ‘within the womb’ of the environmental movement in the 1970s and 1980s” (Blamey 2001).

After the voicing of these concerns, tourism took on the “adaptancy platform” in the 1980s. Under this platform, tourism practices were altered to be more sensitive and noninvasive to their destinations. Within this platform, mass tourism is seen as unsustainable and damaging to its destinations. Tourism had gained the reputation of being “large-scale, externally controlled with high leakage, and concentrated in high-density tourist strips” (Weaver 2001 107). Thus, alternative tourism was introduced. This form of tourism was meant to be the complete opposite of mass tourism: small-scale, controlled locally, and inherently sustainable. One specific type of alternative tourism is ecotourism, which emphasizes natural attractions instead of cultural attractions. While ecotourism existed before the large opposition to mass tourism in the form of national parks and protected areas, it was not until alternative tourism gained popularity that ecotourism emerged as a specific, marketable form of tourism.

The “adaptancy platform” of tourism transitioned into the “knowledge-based platform” in the 1990s. This platform attempts to take the ideologically based ideas of ecotourism from the previous platform and apply them to fit the different circumstances of each destination. Essentially, the “knowledge-based platform” is seeking to make ecotourism work, which means altering its form to be sustainable

to the environment and culture of the location. Weaver explains, “In this framework, the assessment of a particular tourist product as good or bad does not depend on scale, but rather on the effectiveness of the management practices that are applied to the circumstances of each individual destination” (Weaver 2001 108).

Ecotourism today remains within this platform, seeking the correct practices and methods in which to apply ecotourism so that it remains true to its purpose.

The term ‘ecotourism’ was coined in July 1983 by architect and environmentalist Hector Ceballos-Lascurain. At the time, Ceballos-Lascurain was working both as Director General of Standards and Technology of SEDUE (Mexican Ministry of Urban Development and Ecology) and founding president of PRONATURA (a Mexican conservationist NGO). In an interview with Ron Mader, Ceballos-Lascurain explains that he came up with the term ecotourism while lobbying against the construction of marinas in the wetlands of northern Yucatan (Mader 2005). His argument was that the biodiversity of the area was attracting a large number of tourists, who were boosting the local economy, encouraging the preservation of the ecology, and creating new jobs. He used the term ecotourism to describe this phenomenon. He defined ecotourism as “... . traveling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring and enjoying the scenery and its wild plants and animals as well as any existing cultural manifestations” (Che 2006). In a presentation for PRONATURA later that year he expanded on ecotourism by also defining the ecotourist:

“Ecotourism implies a scientific, esthetic or philosophical approach, although the 'ecotourist' is not required to be a professional scientist, artist or philosopher. The main point is that the person who practices ecotourism has the opportunity of immersing him or herself in nature in a way that most

people cannot enjoy in their routine, urban existences. This person will eventually acquire a consciousness and knowledge of the natural environment, together with its cultural aspects, that will convert him into somebody keenly involved in conservation issues” (Mader 2005).

This philosophy, or understanding, of ecotourism laid the basis for the development of ecotourism going forward.

Definition of Ecotourism

Since Ceballos-Lascurain’s introduction of the term ecotourism, researchers have continued to define and redefine ecotourism based on many different factors. Sirakaya, Sasidharam, and Sonmez (2006) analyzed 282 different definitions of ecotourism from the literature and tour operator surveys, and they discovered that these definitions can be divided into two main categories: normative or positive. Normative definitions define ecotourism by what it should be. They found that these definitions were formulated based on observations and studies of tourism usually by conservationists, professional organizations, or academics. For this reason, normative definitions stress the importance of the preservation or conservation of the ecological aspects of tourism without properly addressing the business aspects of the private enterprise.

Positive definitions, on the other hand, define ecotourism by how it exists in reality. These definitions typically focus more on the tourism and enterprise aspects, but can often lead to the use of ‘ecotourism’ as a buzz word or marketing tool without any real meaning. Whether a definition is more normative or more positive really depends on who is defining it and what role they play within ecotourism. A conservationist’s definition will often be very different from a tour operator’s definition.

Despite the discrepancies in definitions, three required aspects link the definitions. The first of these is that ecotourism must be nature-based. The ecotourism experience centers on an area with ecological significance or unique biodiversity. Most definitions describe these areas with phrases like “relatively undisturbed areas” or “unique, accessible natural areas” (Ceballos-Lascurain 1987; Fennell and Eagles 1989). Many definitions also include ecotourism activities that revolve around nature such as “viewing wildlife (e.g. birds, sea turtles, and marine mammals), learning about coastal ecology (especially wetlands ecology), and SCUBA diving or snorkeling in undisturbed areas, or to experience nature in its broadest sense” (Agardy 1993).

The next commonality within ecotourism definitions is that ecotourists play some role in the conservation, whether the role is very minimal, just visiting the area, or very active, participating in the conservation efforts. At the very least, Butler (1989, 10) explains, “Ecotourism attempts to give travelers a greater awareness of environmental systems.” Williams (1992, 15) definition adds to this minimal view of ecotourism as “traveling in relatively primitive and rural circumstances, rustic accommodations, muddy trails, basic amenities, the pay-off being a stronger appreciation and closer contact with wildlife.” In both these examples, the most that ecotourism requires of its visitors is a greater awareness and appreciation of the areas they visited without negatively affecting the conservation efforts within that area. However, many other definitions entail more involvement on the part of the tourist. Ziffer (1990, 16) goes as far to say the ecotourist should “practice a non-consumptive use of wildlife and natural resources and contribute to the visited area

through labor or financial means aimed at directly benefiting the conservation of the site and the economic well-being of the local residents.” Western (1993, 7) states that ecotourism should “incorporate both a strong commitment to nature and a sense of social responsibility” within the tourist. These definitions elevate the role of ecotourism by requiring educational elements and elevate the role of the tourist by requiring they make their own contributions.

The third criteria commonly found in ecotourism definitions is the involvement of local communities. This involvement ranges from the inclusion of cultural elements in the ecotourist experience to direct monetary benefits to the communities. Ziolkowski (1990, 16) defines ecotourism as “Low-impact tourism . . . [that] focuses on experiencing the local culture and what it has to offer on its own unadulterated terms . . . far from the proverbial ‘beaten track’.” In his definition, Williams (1992, 15) includes a stronger appreciation of local culture as one of the benefits to ecotourists. Not only do definitions mention local culture and communities as a part of the ecotourists’ experience, but they also include local communities as participants in ecotourism. Wallace (1993, 40) explains in his definition that ecotourism includes “working effectively with local people who live in or near wildlands and cooperating with non-profits,” and Wight (1993, 5) incorporates “respecting the integrity of host communities” into his definition. It is clear that local communities must be involved in some aspect of ecotourism, and thus included in the definition.

The final common element of definitions combines the conservation aspect and the inclusion of local communities to show their direct connection. For instance,

Anderson states, “Ecotourism is a tourism experience infused with the spirit of conservation and cultural change that results in a net positive effect for the environment and local economy... may be part of an overall economic and environmental plan that includes sustainable agriculture, micro-industries and other activities” (1994 32). This element of ecotourism makes conservation and tourism mutually exclusive, dependent on each other. Farrel and Runyan’s definition explain this concept:

“[Ecotourism] focuses on the environment in a special manner in which conservationists and tourist interests see the mutual advantages of working together to preserve environmental quality while mutually protecting tourism...with nature and tourism considered equal partners . . . exclusively purposeful and focused on the enhancement or maintenance of natural systems through tourism” (1991 34).

This particular aspect of the ecotourism definition is synonymous with the purpose of ICDPs. To what extent all four of the aforementioned aspects are carried out within certain cases of ecotourism depends on where the specific case lies on different ecotourism spectrums.

Ecotourism Spectrums

Ecotourism is a philosophy that follows certain principles. Its framework is meant to reconcile the conflicts that often occur between conservation of biodiversity and development caused by tourism. However, there are many different ways to accomplish this reconciliation. Because the term ‘ecotourism’ can be interpreted and defined in so many ways, many spectrums of the definition of ecotourism exist. How a specific case of ecotourism functions depends on where it lies on a certain spectrum. Each spectrum looks at ecotourism through a specific lens, and real-world application of the definition of ecotourism will depend on

where it lies on the various spectrums that include: comprehensive versus minimalist, high human responsibility versus low human responsibility, soft ecotourism versus hard ecotourism, and community-based ecotourism versus conservation-based ecotourism.

The first spectrum, comprehensive versus minimalist, is based on the extent to which an ecosystem, learning, and sustainability are featured in the ecotourism of the area. On the comprehensive end of the spectrum, the destination features the entire ecosystem of the area, taking a holistic approach toward the destination. For instance, the specific ecotourism location would advertise a “tropical rainforest” or “savannah” experience that implies an “integrated, interconnected entity” (Weaver 2001). In regard to the educational aspect of ecotourism, the comprehensive approach promotes a deep understanding that will have a transformative effect on the tourist, requiring the tourist to further develop her/his ethical and environmental consciousness. The comprehensive approach also holds a high standard of sustainability that requires the environment to gain a net benefit from the experience. The opposite end of the spectrum, however, involves ecotourism that focuses on a singular species or plant that makes the area unique. Typically, minimalist forms of ecotourism advertise popular megafauna, like elephants or lions on safaris. Learning within the minimal approach is very basic and non-transformational, and the only requirement for sustainability is that the experience does not worsen the situation in which it occurs.

The human responsibility spectrum focuses specifically on human involvement in ecotourism. Orams (1995) explains this particular range of

ecotourism implementation in his article “Towards a more desirable form of ecotourism.” This spectrum incorporates aspects of learning and sustainability in the comprehensive versus minimalist spectrum. The high human responsibility form of ecotourism requires an experience that will change both the visitor’s attitude and environmental behavior to include actions that will contribute to the health of the environment. In contrast, the low human responsibility only requires the ecotourism experience to provide satisfaction to the tourist with minimal disturbance to the environment.

Another way to approach ecotourism is by determining its ‘soft’ and ‘hard’ dimensions. This spectrum specifically addresses the level of interest and dedication of the ecotourist. According to Orams (2001), “‘Hard-core’ ecotourists have a deep level of interest and often expertise in the subject matter... [and] is prepared and may even desire to live basically, with few comforts, and to travel in difficult circumstances for long periods within a wilderness context in order to truly ‘experience’ nature.” The ‘hard-core’ ecotourist looks for physical challenges and a deep interaction with nature. On the contrary, ‘soft’ ecotourists require a high level of services and accommodations and only desire experiencing ecotourism on a superficial level (Weaver and Lawton 2007). Typically, their visit involves other aspects apart from ecotourism and requires an emphasis on interpretation. Most first-time ecotourists lie within the soft dimension of ecotourism, while those with more experience lie within the hard dimension. When establishing ecotourism in an area, the communities must develop services based on the type of ecotourist they will be catering to.

Ecotourism can also vary in its focus, either placing more concentration on the local communities or placing more concentration on conservation. The concept of community-based ecotourism is very similar to the concept of ICDPs. Kiss (2004, 232) explains that community-based ecotourism is “based on the principle that biodiversity must pay for itself by generating economic benefits, particularly for local people.” Community-based ecotourism requires that ecotourism experiences actively involve local communities, whether through consultation, inclusion in tourism-related economic activities, or partial or full community ownership of ecotourism enterprises. Conservation-based ecotourism lacks this focus. While local communities and culture may be a part of the ecotourism experience in that area, the main benefits of ecotourism are directed towards conservation efforts. Kiss explains that conservation-based ecotourism often produces discontent among local communities, either because conservation interferes with their livelihoods or because they do not receive any benefits from the tourism. Community-based ecotourism seeks to connect conservation and development through ecotourism activities, resulting in a symbiotic relationship.

Criticisms of Ecotourism

Many of the criticisms of ecotourism stem from how it is defined. Many critics believe that active and hard definitions of ecotourism set too high of a standard and in practice are unachievable. The high standard many critics are referring to is the tying of conservation goals to development. The active and hard definitions of ecotourism require that ecotourism contributes to the health of the environment, which is very difficult to achieve when tourism is involved. Orams

(2001, 32) explains, “it [ecotourism] is not a panacea that always both protects the environment and supports economic activity.” For this reason, many believe that ecotourism should not be associated with conservation at all. The fear is that ecotourism might “open the doors to more forest destruction, destroy more biodiversity and harm more local communities, or promote opportunities for a whole range of investors to gain access to remote rural forest, coastal, and marine areas” (Butcher 2007 vii).

Building off of this criticism, other skeptics such as James Higham (2007, 2) believe that many cases of ecotourism “are an elaborate ruse and effective marketing tool for building further demand for tourism at a time of growing concern for the impacts of popular mass tourism.” These critics believe that because ecotourism has become the newest fad in the tourism market, its value has been diluted. This counterfeit form of ecotourism is called ‘ecotourism lite.’ Buckley (2004, 81) defines ‘ecotourism lite’ as a situation “where the cosmetic addition of an environmental interpretation program or a minor improvement in environmental management is used to lay claim to the ecotourism title, even if overall the social and environmental impacts of the enterprise are quite severe.” In situations such as these, market pressures to ‘be green’ or ‘eco-friendly’ replace the primary concern for environmental conservation and involvement of local communities with the concern of attracting ecotourists and generating revenue (West and Carrier 2004).

The final major criticism of ecotourism is the way in which it can affect local communities. Some possible negative outcomes of ecotourism in this respect are the dislocation of local populations in the creation of ecotourism destination parks and

reserves, the tendency of local people to stage authenticity for tourists, and the local strains of catering to the tourism industry (Carrier and Macleod 2005).

Furthermore, Butcher argues that ecotourism operates under the assumption that ecotourism planners have a moral authority over the ways in which local people can develop. He explains, “Many projects attempt to support rural communities to adopt what are deemed to be sustainable patterns of living. Yet the projects interpret *sustainable* as meaning the maintenance of the communities' way of life...[which] defines the marginal, impoverished status of so many in third world countries” (Butcher 2005 123). Essentially, ecotourism promotes sustainable development but only when it maintains traditional ways of life, even if this is not the development desire of the local community.

It is important to take each of these criticisms into consideration when defining and implementing an ecotourism project. The ambiguity and many interpretations of the definition of ecotourism can lead to the neglect of its most important principles. Even though such failures can occur, the goal of ecotourism remains valid and creditable. As Orams (2001, 33) states, “just because it is difficult to achieve in practice does not mean it is unattainable.”

Definition

Ecotourism is a form of economic development that can easily function within Integrated Conservation and Development Projects because of their similar aspects and common goals. However, within the ICDP context, only a specific definition of ecotourism will be successful. Within the context of ecotourism spectrums, this definition of ecotourism must be comprehensive, including all

aspects of the ecosystem, requiring a deeper involvement of the ecotourist, and incorporating a level of sustainability that provides net benefits to the environment. It must also lie within the high human responsibility area of the spectrum, involving the ecotourist in more than nature-based activities. In regard to hard versus soft dimensions, ecotourism involved in ICDPs could fall under either category. What matters in this respect is the location and the resources available for the communities to provide amenities and services. Finally, the definition of ecotourism as a part of ICDPs should be a form of community-based ecotourism. Keeping all of these aspects in mind, the most holistic definition of ecotourism used in application for this thesis is The World Conservation Union and the Ecotourism Society's definition: Ecotourism is "responsible travel to natural areas that conserves the environment and sustains the well-being of local people (Taylor et. al. 2003 977).

Appendix 2: Criteria for Project Selection

I compiled the data in the table below during my initial research of ICDP literature. These ten projects emerged as successful ICDPs based on their conservation and development achievements, as listed above. However, in order to gain a clear understanding of the fundamental philosophies present in ICDPs, I narrowed down the projects to the first five listed in the table. I did so for two reasons: to compile the most diverse group of successful ICDPs and to ensure that there was a sufficient amount of literature on each study to come to definitive conclusions.

The five chosen projects represent four different continents- Asia, Africa, South America, and Central America. They also vary in size both in area and population. The ACAP has one of the smallest areas at 7,269 km² but the largest population, 100,000. In contrast, Casa Matsigenka has the largest area, 15.33 million km², but the smallest population, 421. The other chosen projects fall somewhere in between these sizes. The projects also vary greatly in habitat, ranging from high mountainous altitudes to marine ecosystems to tropical rainforests. The fact that these projects vary so greatly in size, location, and habitat but are still successful demonstrates that there must be other underlying factors that are attributed to the projects' success.

The second factor that led to the five chosen projects was the availability of resources. In order to conduct a comprehensive examination of each project, I needed to have access to multiple case studies as well as annual reports and other forms of information on the projects. The projects I chose had accessible internal

reports and many outside studies conducted on their progress, making them easier to assess.

Project	Location	Area	Population	Habitat	Development Activities	Conservation Activities
Annapurna Conservation Area Project (ACAP)	Nepal	7,629 km ²	100,000	Ranges from sub-tropical sal forest to perennial snow	Subsistence agriculture, reforestation, alternative energy, tourism, establishing small commercial market, craft production	natural resource management, public land preservation
South Luangwa Area Management Unit (SLAMU)	Zambia	15,000 km ²	51,950	Woodland Savannah	local microenterprise building, ecotourism, Nsendamila Cultural village, Kawaza Village tourism,	Community based scouts,
Casa Matsigenka Project	Peru	15.33 million km ²	421	grasslands and shrublands, high jungle forest, and tropical Amazon forest	Community volunteer based organization system for lodge construction, workshops to strengthen cultural identity and tourism knowledge, trained as tour guides of the area, specific area for agriculture	Comply with the PNM conservation efforts

North Rupununi District Development Board (NRDDB)	Guyana	8,000 km ²	6,000	Mixture of forest, savannah, and wetlands ecosystems	Community training in conservation and ecotourism practices, microenterprise growth, cultural research program	Recovery of Arapaima (CITES II species) stocks ongoing Conservation of Black Caiman, Giant River Otters, and Jaguar resulting from program
Toledo Institute for Development and Environment (TIDE)	Belize	2,993.2 6 km ² of land 404.7 km ² of sea	5,000	Land: Ranges from coastal plain broadleaf forests to mangrove forests Sea: Coral reef, sea grass beds, mangrove cays.	Training of former fishers and hunters to serve as tourism brokers, conduct microenterprise training and other workshops, ecotourism, subcontracts small businesses in the region to provide tour packages, Community steward programs, Environmental education and outreach.	Monitoring program, elimination of illegal hunting and fishing, zoning, reforestation
Pred Nai Mangrove Conservation and Development Group	Thailand	19.2 km ²	560	Tropical mangrove forest	Community- based learning centers, crab collecting, savings management group, ecotourism	Regulations on crab foresting, tree planting initiatives, forest mapping and patrol

Pacaya Samiria National Reserve	Peru	20,800 km ²	23,930	Flooded palm and aboreal forest	Commercialization of sustainable resource extraction, subsistence farming, 2% of profits go to community health or education infrastructure, ecotourism	Management plans created for moriche palms, yarina palms, and huasai palms, paiche (fish), and side-necked river turtles.
The India Eco-Development Project in Periyar Tiger Reserve	India	777 km ²	225,000	Tropical evergreen, semi-evergreen, and moist deciduous forests	Village infrastructure, Visitor centers, education programs, pepper collection and sales, pilgrimage businesses, community nurseries, handicrafts, ecotourism , and group farming	Improved protected area (PA) management, joint patrolling, fire protection, soil conservations, and controlling crop depredation
Bwindi Impenetrable Forest ICDP	Uganda	330.8 km ²	72,330	Dense forest with elevations ranging from 1200 m to 2600 m	Community-owned campsite, ecotourism, beekeeping, pineapple farming	Patrolling for poaching and habitat destruction, regeneration of gorilla populations,
Yancheng Biosphere Reserve Project	China	2,800 km ²	90,000	Coastal/ marine wetlands; Temperate and sub-polar broadleaf forests or woodlands	ecotourism, sustainable fish harvesting, sustainable agriculture, local involvement in adaptive management	Implementation of adaptive management in reserve, improvement of bird and fish species populations

